

2021

IMPACT EVALUATION OF CHAIR OF HUMAN SETTLEMENTS DEVELOPMENT

Final Draft Report

September 2021



human settlements

Department:
Human Settlements
REPUBLIC OF SOUTH AFRICA



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LIST OF ABBREVIATIONS

APS	Admissions Point Score
BHSD	Bachelor of Human Settlements Development
BNG	Breaking New Ground
CETA	Construction Education and Training Authority
DoH	Department of Housing
GDP	Gross Domestic Product
IHSP-SA	Institute of Human Settlement Practitioners of South Africa
MOA	Memorandum of Agreement
NDHS	National Department of Human Settlements
NMU	Nelson Mandela University
NSC	National Senior Certificate
SAQA	South African Qualifications Authority
SGB	Standards Generating Body
ToR	Terms of Reference

EXECUTIVE SUMMARY

This report details the findings of an economic impact assessment undertaken of the Chair of Human Settlements Development covering the 2012 to 2019 period.

The Chair was formally established in 2012, through the signing of a MOA between the National Department of Human Settlements (NDHS) and the Nelson Mandela University (NMU) and was officially housed in the Faculty of Engineering, the Built Environment and Technology at NMU. The MOA signed between the parties set out five flagship deliverables that needed to occur. These included:

- The design and delivery of a unique professional degree known as the Bachelor of Human Settlements Development Degree. This is a four-year undergraduate integrated multidisciplinary qualification with a focus on human settlement issues;
- The design and development of short courses for mid-career professionals to strengthen or expand their knowledge and competencies in the human settlement environment;
- The identification and implementation of selected research themes relevant to Human Settlements policy, implementation and practice;
- The development and transfer of a defined body of knowledge relevant to Human Settlements Development and Management through, amongst others, the publication of a textbook on Human Settlements; and
- The NMU to assist the Department to facilitate the establishment of the Human Settlements Professional Body.

This report analysed each of the abovementioned deliverables, accompanied with an impact assessment to quantify the economic impact of the Chair's activities over the review period. Based on the adopted methodology, the report was divided into seven distinct chapters. The key findings uncovered in each Chapter are discussed in greater detail below.

CHAPTER 2: LITERATURE REVIEW

This Chapter provided a review of literature pertaining to the human settlements development environment in South Africa, with a specific focus on its history, the policies that govern it, as well as the challenges that have impeded its success.

An investigation of the construction sector in the context of South Africa was also conducted, with specific focus on its contribution to the country's GVA and employment profile. The construction sector was found to contribute to R89.2 billion to the South African economy in 2020, contributing to over 800 000 jobs.

The Chapter further uncovered that there was a skills shortage in the construction sector, where a lack of relevant qualifications and a lack of work experience were noted as the primary reasons for a skills shortage. This highlighted the need for expanding construction and human settlement

development orientated opportunities within the higher education environment in South Africa to not only:

- Fix the issues of the past; but also, to
- Assist in the COVID-19 recovery of the construction and built environment sectors.

The Chapter further provided a discussion on the potential role that higher education can play in overcoming the challenges experienced in the human settlements development environment, through focusing on increasing the output in professional and trained graduates.

The analysis found that 61.5% of South Africa's public universities have an Engineering Faculty, of which only 37.5% have a Built Environment Faculty. Moreover, in 2020, the 26 public universities and universities of technology only had a cumulative total of 16 152 new students enrolled in engineering programmes, which accounts for just 8.0% of the total new university entrants. The review also found that there are currently only six universities in South Africa that are offering, or are in the process or offering, courses aligned to the human settlement environment.

The Chapter concluded in an analysis of the impact of the COVID-19 pandemic on both the higher education sector, as well as the construction sector at large.

CHAPTER 3: PROGRAMME REVIEW

This Chapter provided an analysis of an initial overview of the Chair of Human Settlements Development. The Chapter highlighted key areas pertaining to the rationale for the Chair's existence, the historical developments, and focus areas of the Chair, as well as the design, beneficiaries and the breakdown of the financial reports assigned to the Chair.

A discussion on the future plans of the Chair was also provided, where issues and weaknesses related to the Chair's capacity and development were noted. These included:

- Low student numbers;
- Limited awareness amongst employers about the Degree;
- Inadequate staffing
- Weaknesses in financial reporting;
- Weak administrative capacity supporting the Chair

The Chapter also considered the human and financial resources allocated to the Chair of Human Settlements Development. An organisational review showed that the Chair has a comparable small team of specialist lectures but is supported by lecturing and support staff from the broader School of the Built Environment and Civil Engineering at NMU. This helps to significantly reduce the lecturing and administrative burden of the small team allocated to the Chair.

From a financial perspective, the Chair has successfully crowded in alternative funding income, resulting in the **attraction of R0.31 in additional funding for every R1.00 of NDHS grant funding** received. This has resulted in the Chair receiving an additional R7.8 million in income from SLPs, on top of the R25.3 million from the NDHS funding.

CHAPTER 4: ASSESSMENT OF THE CHAIRS PERFORMANCE

This Chapter reviewed the Chair's academic programme for the Bachelor of Human Settlements Degree. The review illustrated that the Chair had largely met the requirements of the MOA and internal targets in terms of student enrolments, SLP facilitation, research outputs and research collaborations, as well as consultatory services. However, at the time of this report, the Chair had not been successful in meeting establishing a Council for Human Settlement Practitioners.

In a detailed overview of the Chair's activities, it was shown that **42 students graduated from the Degree**, highlighting the Chair's success of not only establishing a Human Settlements Development Degree, but also ensuring that these students graduated from the programme.

In total, the Chair **generated 85 research outputs, attended, and hosted a combination of 24 conferences**. Of particular note was the 2016 National Human Settlements Conference hosted by the Chair and which attracted 650 national and international delegates. The Chair **collaborated with 12 unique organisations**, generating R1.58 million in second stream revenue.

Additionally, it was found that the Chair had been successful in enrolling students throughout the review period, but that they were unsuccessful in reaching the envisaged student enrolment targets. This meant that over the review period, only 181 first-year students were enrolled against a target of 270 – 89 fewer students than anticipated and only 67.0% of the target.

However, despite the low student enrolment numbers, the Chair undertook several recruitment procedures through newspapers, magazines, radio, and television, which had ultimately contributed to increasing student enrolments. Additionally, the Chair created unique course related content for the purposes of the Degree.

The review highlighted that the Chair had created and conducted numerous SLPs for various human settlement practitioners. Over the review period, the Chair **conducted 28 SLPs to over 839 participants, generating R9.0 million in second-stream revenue**.

CHAPTER 5: SURVEY ANALYSIS

This Chapter highlighted the results obtained from the surveys conducted with past Human Settlement Degree graduates. The purpose of conducting this research was to obtain the students' opinions and perceptions of the course, and whether their academic expectations were met. In total 63% of past graduates completed the survey.

The results showed that a significant proportion of the **graduates rated the course highly, where the overall degree was rated at 75%**, while the teaching quality was rated at 77%. Moreover, **47% of the students stated that they would recommend the degree** to other prospective students. The students stated that positive aspects of the degree included good course content, as well as the potential for expanding their knowledge within the human settlements space.

Despite the positive ratings of the degree, the results highlighted that a significant majority of the graduates were unemployed following their graduation. When questioned which aspects of the degree could be improved, a large proportion of the students suggested that work-learning exposure could be increased, where students could be exposed to potential employers and employment options after graduation.

CHAPTER 6: CHAIR'S IMPACT ANALYSIS

This Chapter sought to quantify the economic impact of the Chair, as well as identify the associated benefits that have arisen over the review period. The analysis considered the Chair's capital and operational expenditure, where an economic impact assessment was created. Based on this, it was shown that the Chair has had a positive impact on South Africa's economy and production, GDP, employment and household income, where:

- The Chair generated an estimated R51.5 million in new business sales, and a further R18.3 million in additional benefits, or **2.74 times the funding value received**;
- The Chair's activities boosted the national GDP by an estimated R13.5 million;
- The Chair work contributed to the creation of 72 job opportunities; and
- Through its activities, the Chair increased national household's income by approximately R6.8 million.

In addition to this economic impact, a further **R18.3 million in additional benefits** accrued to the South African economy as part of the Chairs' operations. Based on this, the overall benefits accrued from the Chair over the review period have significantly benefitted the South African economy.

Based on this, the overall benefits accrued from the Chair of Human Settlements Development over the review period have exceeded the funding from the NDHS by 2.74 times. This means that for **every R1.00 in funding from the NDHS, the Chair has generated R2.74 in benefit** to the broader South African economy, highlighting the positive impact that the Chair has had over the review period.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

The report highlighted that the Chair exhibited a positive economic impact on the South African economy. Moreover, the Chair largely met the requirements of the MOA between the NDHS and NMU, where the Chair exhibited success in meeting the five flagship focus areas.

Based on the findings obtained in this report, **six recommendations were proposed**. These included:

a) Increasing the footprint of the Chair:

The overarching goal of the Chair is to increase the sphere of influence of human settlement development within both education and research institutions as well as the built-environment industry more broadly. To expand the sphere of influence of human settlements development in the broader built-environment industry it is recommended that **human settlement related content and modules be included in different degrees offered within the Faculty of Engineering, the Built Environment and Technology at NMU**.

b) Revise functions of the Chair

The review highlighted that the MOA requires a significant commitment from the Chair. In addition to lecturing, supervising students and conducting academic work and administration attached hereto, the Chair is required to undertake research, attract funding, attend and host conferences and pursue collaborations with other organisations.

Due to the significant commitments required of the Chair, compounded by the small staff compliment, many of the responsibilities required from the MOA of the Chair inhibits their ability to implement them all effectively and to the highest quality. Therefore, it is recommended that the **roles and functions of the Chair be revisited** in order to ensure that they can effectively achieve the objectives set out in future MOAs.

c) Set specific metrics/targets in future

When examining the MOA, few if any of the focus areas had specific targets which could be measured against. **Providing specific metrics for future focus areas** of the Chair would contribute to a better understanding of what the Chair should achieve and make the measurement of such achievements easier. Therefore, it is recommended that future MOAs provide specific metrics for the Chair.

d) Place greater focus on practical elements in Degree

Findings from the stakeholder engagement process presented in Chapter 5 highlighted the limited practical work experience offered in the Degree. Many past graduates indicated that this had limited their opportunities in the human settlements space outside of university, resulting in them struggling to find employment opportunities following their graduation.

Based on this, it is recommended that the Chair consider **restructuring** several **modules to incorporate more practical elements** into the Human Settlement Development Degree.

e) Improve enrolment strategies

It is recommended that the Chair continue to pursue strategies to enrol students in the Human Settlements Degree at NMU. In the assessment review, it was found that although the Chair had pursued multiple marketing and enrolment strategies during the review period, they occurred in an irregular manner. It is therefore recommended that **more frequent marketing strategies be pursued** to ensure that the course maintains sustainable student enrolment figures post-MOA.

f) Ensure financial viability

Through consultation with representatives of the Chair, as well as an analysis of financial reports and documentation, issues of financial viability and accountability came to the forefront. It was observed that the Chair faced funding constraints as well as several financial-related issues. Based on these limitations, it is recommended that the **NDHS provide future financial support** until such a time as the degree programme reaches sustainable student numbers.

CHAPTER 1

INTRODUCTION

Urban-Econ Development Economists submits the following Draft Report to the National Department of Human Settlements (NDHS). The focus of the study was to conduct an independent impact evaluation study of the Nelson Mandela University (NMU) Chair of Human Settlements Development.

1.1. BACKGROUND

In 2012, the National Department of Human Settlements (NDHS) and the Nelson Mandela University (NMU) entered into a Memorandum of Agreement (MOA) which provided for the establishment of a Chair of Human Settlements Development Management. In terms of the MOA issued by the NDHS, NMU was to support the professionalisation agenda of the Department by implementing five flagship projects. These projects included:

- The design and delivery of a unique professional degree known as the Bachelor of Human Settlements Development Degree. This is a four-year undergraduate integrated multidisciplinary qualification with a focus on human settlement issues;
- The design and development of short courses for mid-career professionals to strengthen or expand their knowledge and competencies in the human settlement environment;
- The identification and implementation of selected research themes relevant to Human Settlements policy, implementation and practice;
- The development and transfer of a defined body of knowledge relevant to Human Settlements Development and Management through, amongst others, the publication of a textbook on Human Settlements; and
- The NMU to assist the Department to facilitate the establishment of the Human Settlements Professional Body.

To assess the effectiveness of the abovementioned flagship projects, the NDHS identified a need to conduct an impact evaluation study of the Nelson Mandela University (NMU) Chair of Human Settlements Development to determine its effectiveness and lessons learnt during the Chair's seven years of existence. As such, Urban-Econ Development Economists were appointed by the NDHS to conduct an impact evaluation of the Chair of Human Settlements Development (the Chair) covering the 2012 to 2019 period¹.

1.2. PURPOSE OF THE STUDY

The scope of the impact evaluation study was primarily informed by the MOA, which was entered into by the NDHS and the NMU. The impact evaluation study will target the Chair of Human Settlements

¹ Hereafter known as the review period.

Development located in the Nelson Mandela University, Port Elizabeth in the Eastern Cape.

The Terms of Reference (ToR) issued by the NDHS specified that the following aspects constitute the primary objectives of the impact evaluation study:

1. To determine whether the objectives of the Chair of Education in Human Settlements Development have been met;
2. To determine the impact of the services offered by Chair of Education in Human Settlements Development Management;
3. To determine factors that were barriers to the effective implementation of the MOA between the NDHS and the NMU; and
4. To compile a comprehensive report on the findings of the impact evaluation study with recommendations.

In conducting the impact evaluation, the following entities and individuals who participated in the establishment and management of the Chair or who benefited from its services will be targeted for data collection as they will provide valuable information on the management of the Chair and its effectiveness:

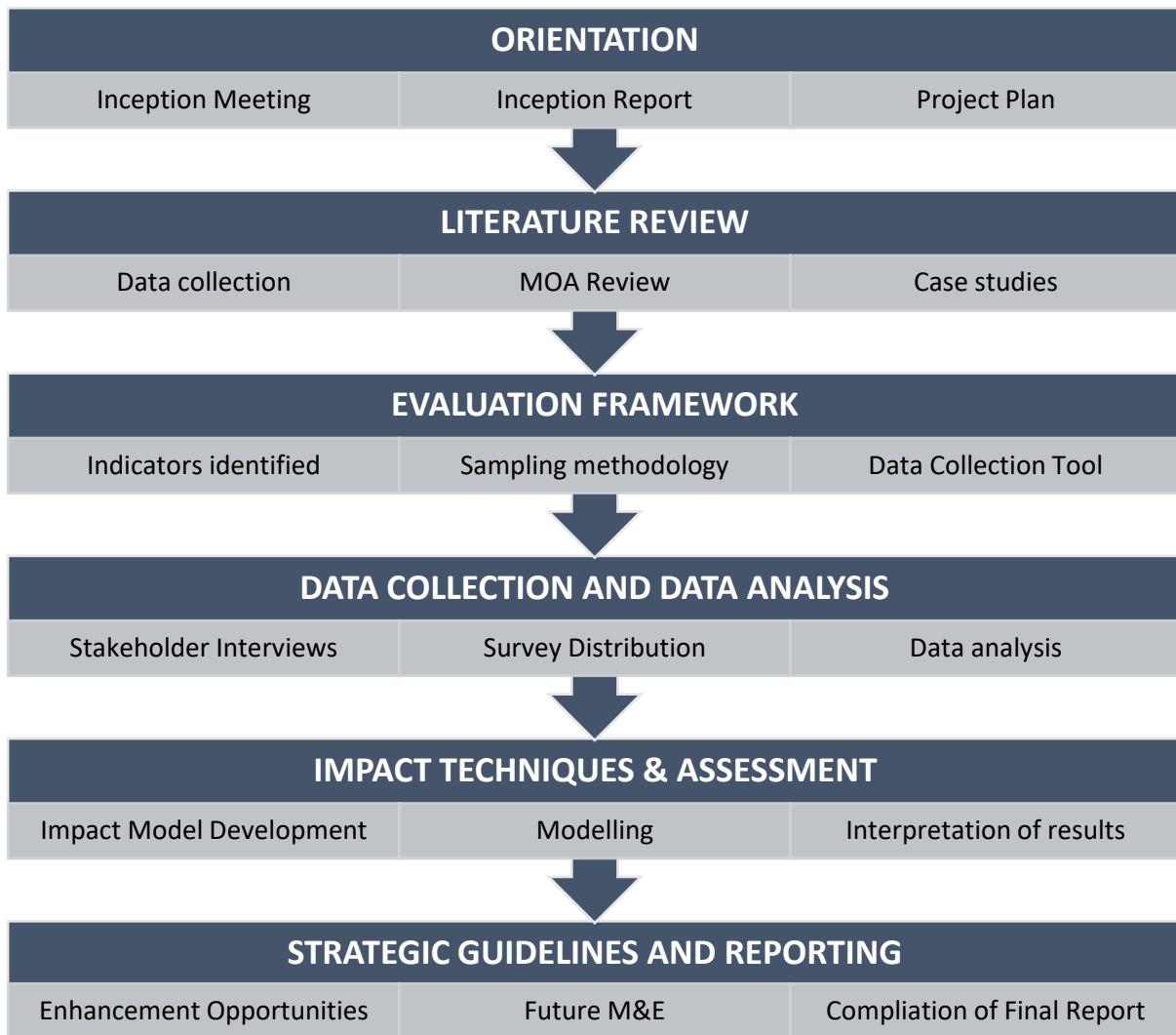
- Relevant officials of the NMU;
- Relevant officials of the NDHS;
- Students of the Bachelor of Human Settlements Development Degree;
- Beneficiaries of the short learning programmes offered by the Chair;
- Relevant officials of the Nelson Mandela Bay Municipality;
- Relevant officials of the Eastern Cape Provincial Department of Human Settlements.

The purpose of contacting and obtaining information from the stakeholders mentioned above will be to determine whether the Chair of Human Settlements had successfully met the objectives set out in the MOA.

1.3. METHODOLOGY

The following Section sets out the methodology as to how the study was conducted. It interprets the project scope and sets out the theoretical base and techniques used in this analysis. Figure 1.1 below indicates the steps that were followed for the study:

Figure 1.1: Study Methodology



1.3.1. ORIENTATION

This step entailed scheduling an inaugural meeting and developing an inception report for the client to finalise the goal and objectives to be achieved with the study and to clarify, among other things, the following issues:

- Methods of cooperation between the client and consultant
- Finalisation of project scope, objectives, programme, and possible dates for meetings
- Finalisation of the survey sample.
- Identifying important role-players and stakeholders to be involved in the process.
- Identifying and obtaining all relevant documentation, budgeting data and policy documents.

1.3.2. LITERATURE REVIEW

The literature review was undertaken to develop a context for the study. It included a review and an analysis of prior planning, organisational documentation and previous monitoring and evaluation that

had taken place. This review aimed to provide a basis and background to the Human Settlements profession in South Africa. Literature about higher education, skills shortages, and the impact of COVID-19 on the higher education and human settlements sector in South Africa was also considered. The literature review considered a selection of the following documentation:

- Strategic planning reports;
- Annual reports;
- Financial reports;
- The memorandum of agreement;
- Human resourcing structure; and
- Overview of the course content and curriculum.

1.3.3. EVALUATION FRAMEWORK

An evaluation framework was developed from appropriate data to determine the impact of the chair. The evaluation framework was designed to answer the following questions:

- What needs to be measured?
- What indicators can be used to measure performance and qualification?
- What information and data are available to measure performance?

To answer the questions posed above, the research team developed an evaluation framework. The evaluation framework was set up in a matrix format for easy application. Weights were assigned to all the criteria in terms of qualification and critical value. After that, a formulation of indicators was undertaken. These indicators were classified under the following overarching themes: impact, officials/staff performance, student performance and perception indicators. These were informed directly from the MOA.

A sampling methodology was then developed. A stakeholder list was compiled to engage with the relevant officials, educators, and course management, and relevant personnel were identified in conjunction with the client. These individuals were engaged with one-on-one or in small focus groups.

In terms of student/beneficiary engagements, these were administered using a standard data collection tool. It was necessary to ensure that an appropriate mix of current and past students/beneficiaries was surveyed. To ensure that the engagements were representative. This necessitated determining a statistically significant sample.

A data collection tool was developed to collect the necessary evaluation framework data. A data collection tool was developed based on these indicators to ensure reliable, measurable, and statistically relevant results were achieved.

1.3.4. DATA COLLECTION AND DATA ANALYSIS

The focus of this step was to review and collate all primary and secondary data sources to answer the evaluation framework indicators. This involved a review of any relevant documentation provided by the client and other stakeholders. Primary data was collected via the following means:

- 1) **Electronically Distributed Surveys:** This was the data collection method that was predominately used. Surveys were distributed via email, with email addresses provided by either NMU or the Department of Human Settlements. Thorough explanations and assurances of confidentiality were provided to all intended respondents.
- 2) **One-on-one interviews:** Where deemed important or necessary, specific stakeholders, educators or officials were earmarked as critical contributors to the study that require individual meeting engagements. The research team gave participants advanced warning and requested interview time slots that were convenient to their schedules. These were administered face to face or via video calls.

The primary and secondary data collected was captured into a database and cleaned and sorted. It was then be analysed to identify correlations, patterns, and trends. The data was represented using appropriate visualisation tools and included within the draft report.

The review enabled the research team to:

- Develop an understanding of the courses/programme/participants and operational matters;
- The amount of funding that the programme has required; and
- The types of monitoring and evaluation that may have been carried out in the past.

1.3.5. IMPACT TECHNIQUES AND ASSESSMENT

The purpose of this step was to assess the Chair's activities through analysing the following:

1. The **efficiency** of the Chair's activities by assessing:
 - The total value of inputs provided since the inception of the Chair;
 - Outputs generated by the Chair, including whether these outputs achieved their stated targets, were undertaken promptly, and whether they were affordable.
2. The **design** and **management** of the Chair's activities by assessing:
 - Whether the MOA document was comprehensive and included a vision, objectives, performance indicators and risk analyses.
3. The **effectiveness** of the Chair's activities by assessing:
 - An assessment of whether the outcomes and outputs of the courses were achieved;
 - Identification of whether the intellectual property was developed and protected;
4. The **sustainability** of the Chair's activities by assessing:
 - Skills development and human resource capacity building;
 - Project implementation and sustainability performance.

1.3.6. STRATEGIC GUIDELINES AND RECOMMENDATIONS

The focus of the final step was to interpret the impact findings of this study and build upon prior

recommendations for previous evaluation reports (where applicable) to package a set of comprehensive guidelines to improve the programme. Integrated strategic guidelines were formulated to ensure that the results were integrated with appropriate phasing and resource allocation. The constraints and perceptions recorded from beneficiaries were explored to determine the root cause of the challenges.

1.4. STUDY LIMITATIONS

In compiling the report, several limitations and challenges were encountered. These challenges included:

- 1) Difficulty in **sourcing documentation**:
 - There was a difficulty in sourcing documentation from various stakeholders for analysis. This resulted in a prolonged analysis phase of the assignment.
- 2) Difficulty in **obtaining stakeholder contact details**:
 - Delays were experienced in obtaining contact details for various stakeholders for the assignment; namely past-degree recipients and short learning programme stakeholders.
- 3) Impact of **COVID-19**:
 - The impact of COVID-19 impacted the primary data collection phase of the assignment, where it was not possible to conduct in-person interviews and in-person focus group meetings. This was amended by proposing to conduct telephonic and online interviews and surveys.

1.5. REPORT LAYOUT

The remainder of the report will be structured as follows:

CHAPTER 2: LITERATURE REVIEW	This Chapter presents an overview of the human settlements environment in South Africa and a discussion on the higher education environment in the country, with a particular focus on skills development and capacity building in the human settlements arena.
CHAPTER 3: PROGRAMME REVIEW	This Chapter provides an overview of the impact evaluation for the study, with particular detail about the human and financial resourcing structure and the organogram of the human settlements degree at NMU.
CHAPTER 4: ASSESSMENT OF CHAIR'S PERFORMANCE	This Chapter will assess the Chair's performance against its targets (if any) since its inception. The assessment will include an analysis of the Chair's historical developments. The programme's inputs and outputs will be used as a benchmark for the assessment.

CHAPTER 5: SURVEY ANALYSIS

This Chapter analyses the primary data collection process results based on the questionnaires sent to past graduates of the Human Settlements Degree.

CHAPTER 6: CHAIR'S IMPACT ANALYSIS

This Chapter provides an economic impact analysis of the Chair's activities. The Chapter also seeks to quantify any other benefits that may have arisen due to the Chair's operations.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

Final conclusions and recommendations that were drawn from the report are presented in this Chapter.

CHAPTER 2

LITERATURE REVIEW

This Chapter provides a review of literature pertaining to the human settlements environment in South Africa, with specific attention paid to the history of human settlements and its associated policies. A review on higher learning and education in South Africa is also provided with a specific focus on those disciplines that relate to the human settlement environment. A discussion on the impacts of COVID-19 on both higher education and the human settlement environment will also be presented.

The Chapter begins by defining and discussing the human settlements environment in South Africa before preceding into a discussion on the overview and challenges of the construction industry in the country. The Chapter then identifies several key policies that govern the human settlements space in the country, highlighting specific policies that speak to capacity building and skills development. A section on the higher education sector in the country is then explored, where reference is given to the role higher education institutions can play in increasing capacity building in the human settlements environment. The Chapter concludes with a discussion on the impact of COVID-19 in the construction and higher education sectors.

2.1. OVERVIEW OF HUMAN SETTLEMENTS IN SOUTH AFRICA

The Apartheid era in South Africa significantly influenced the human settlements environment in the country. It ultimately provided the backdrop for the policies and instruments introduced after 1994, which aimed to address the challenges of underdevelopment, segregation, and discrimination in South Africa (From Housing to Human Settlements, 2014). The unequal distribution of wealth between racial groups lead to the unequal allocation of housing provisions within South Africa. The apartheid government enforced the segregation of households based on race. Rural areas were divided into underdeveloped Bantustans – usually occupied by black households – while the urban residential areas were well developed and occupied by white households (SA Cities Network Housing Settlements, 2014).

Policies were introduced by the Apartheid government, which focused on the conscious effort to not build low-income houses in urban areas. This was to discourage urbanisation of races that were not white, and therefore further segregate racial groups in South Africa. The consequences of these policies are still evident today. As a result of a lack of proper housing development to accommodate lower-income households, informal settlements have arisen in previously empty urban spaces (From Housing to Human Settlements, 2014).

Furthermore, urbanisation has exacerbated the abovementioned issue. The movement of people from rural communities to cities to find employment has resulted in an influx of people into urban areas. This ultimately created a strain on the housing markets in urban areas, which exacerbated the development of informal settlements. Since 1994, informal settlements in urban areas have grown from an estimated 300 to over 2600 in 2010 (From Housing to Human Settlements, 2014). The rise in informal settlements epitomises exclusion from development opportunities within South African cities.

To this end, a critical priority for the new democratic government was to address the lack of adequate housing for black South Africans. The Department of Housing (DoH) was established in 1994, and has, since 2014, created approximately 3.7 million housing opportunities for black South Africans (From Housing to Human Settlements, 2014). However, the housing that has been provided is located on the periphery of cities, which reenforced the legacy of Apartheid – the segregation of racial groups. This led to a significant number of people not benefitting or having access to economic activities and public services like healthcare, which are often located within the more affluent cities.

Moreover, poor public transport systems in the country have resulted in many poor communities remaining excluded from the benefits that are located within the city, as these locations are on the outskirts of cities. This means that they are reliant on public transport to access the benefits associated with city living (From Housing to Human Settlements, 2014).

Despite a greater emphasis on housing delivery between 1994-2003, there were criticisms against the housing programme, which included:

- Poor location;
- Poor quality of housing; and
- Poor **integration of housing with other socio-economic facilities.**

As a result, there was a shift in government policy away from a narrow conceptualisation of “housing” to a more holistic framework of “human settlements”. In essence, the shift moved the emphasis away from just building houses to recognising the importance of providing access to cities' resources and opportunities. This would facilitate active social and economic participation by historically marginalised communities. This change in emphasis in the housing environment in South Africa resulted in the development of the Comprehensive Plan for Sustainable Human Settlements in 2004 (hereafter referred to as the Breaking New Ground (BNG) Policy), and the Department of Housing (DoH) was renamed to the Department of Human Settlements (NDHS) in 2009.

The BNG Policy was introduced to promote an integrated society through developing the human settlements environment in South Africa. At the same time, the Policy also sought to provide quality housing within a subsidy system for different income groups. Although substantial progress has been made in creating an equal society in South Africa since democracy in 1994 in terms of creating a more enabling environment for the delivery of affordable housing, there still exists a backlog in the delivery of, and access to, affordable housing. The BNG Policy, therefore, aimed to promote the achievement of a non-racial and integrated society through the sustainable human settlements development environment.

The BNG Policy was established to represent a more updated version of the Reconstruction and Development (RDP) Programme. While the BNG Policy built on existing housing policies that were addressed in the White Paper on Housing (1994), there was a shift away from solely focusing on the delivery of affordable housing to ensuring that housing that was delivered was both sustainable and habitable.

Against the backdrop of the newly established NDHS and BNG Policy, the overarching goals of the housing and human settlements developments sector were to:

- Accelerate the delivery of housing as a key strategy for poverty alleviation.
- Use housing provision as a major job creation strategy.
- Ensure property can be accessed by all as an asset for wealth creation and empowerment.
- Leverage growth in the economy.
- Combat crime, promote social cohesion and improve the quality of life for the poor.

As a result, the mission of the NDHS is now focused on facilitating the creation of sustainable human settlements and improved quality of household life (National Department of Human Settlements, 2021).

2.2. THE CONSTRUCTION AND BUILT ENVIRONMENT SECTOR IN SOUTH AFRICA

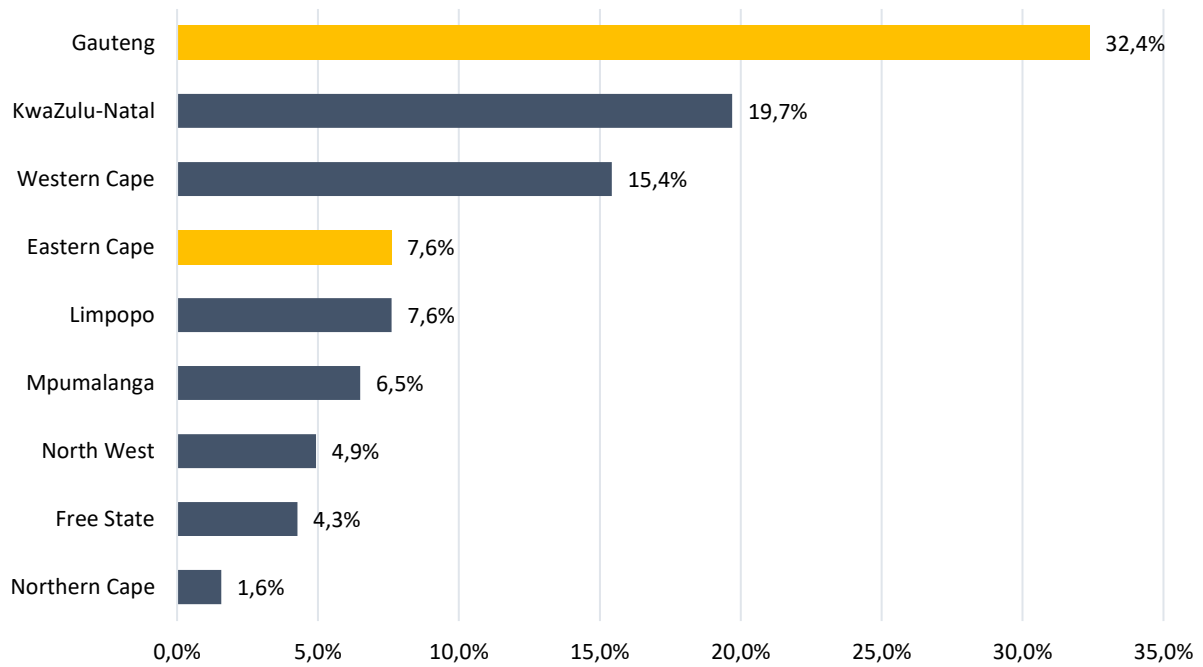
From the discussion above, it is evident that many of the economic activities associated with the South African human settlement environment fall within the construction and built environment sector. The trends in this sector, particularly as they relate to skills shortages, will therefore have a direct bearing on the ability of the NDHS to create sustainable human settlements. The following Section, therefore, briefly unpacks the construction and built environment sector in South Africa, focusing specifically on the sector's skill profile requirements.

2.2.1. TRENDS IN THE CONSTRUCTION SECTOR

The construction sector in South Africa consists of five main sub-sectors. These include Building Construction, Roads and Civil Construction, Materials Manufacturing, Electrical Construction, and the Built Environment Profession (CETA, 2021). Through these sub-sectors, the construction sector consists of a range of activities, which include the building and planning of residential and non-residential buildings, civil works such as road, tunnel, and bridge construction, as well as water, energy, and sewerage infrastructure construction (CETA, 2021).

In 2020, the construction sector contributed R82.9 billion to the South African economy, equivalent to about 3% of the country's total GVA (Quantec, 2021). This highlights the comparably small size of the country's construction sector. Gauteng is the primary contributor to the South African construction sector, contributing 32.4% of the sector's total GVA in 2020. This is followed by KwaZulu-Natal (19.7%), the Western Cape (15.4%) and the Eastern Cape (7.6%) (Quantec, 2021). Figure 2.1 illustrates a breakdown of the construction GVA per province in South Africa.

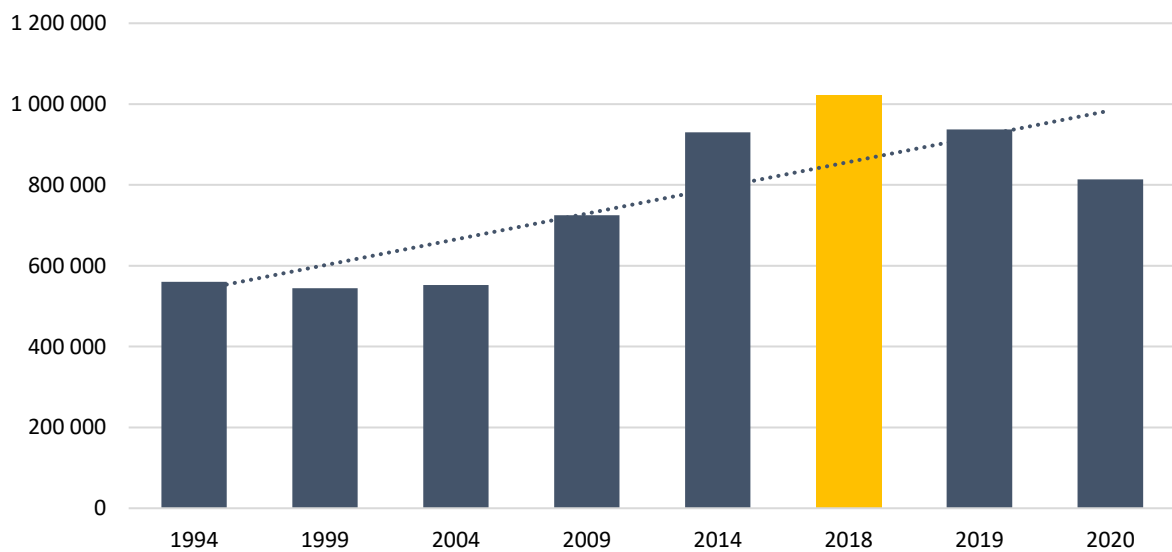
Figure 2.1: Construction sector’s GVA contribution per province (2020)



Source: Urban-Econ calculations based on Quantec (2021)

The construction sector employs a wide range of occupations, ranging from specialists such as engineers and architects to general service employees, such as elementary and skilled employees. Further adding to the Built Environment Profession, this sub-sector is governed by the Built Environment Professions Act (No. 43 of 2000) and includes many professions such as architects, engineers, town and city planners, project and construction managers, property valuers, and quantity surveyors.

Figure 2.2: Construction sector’s employment profile (1994-2020)

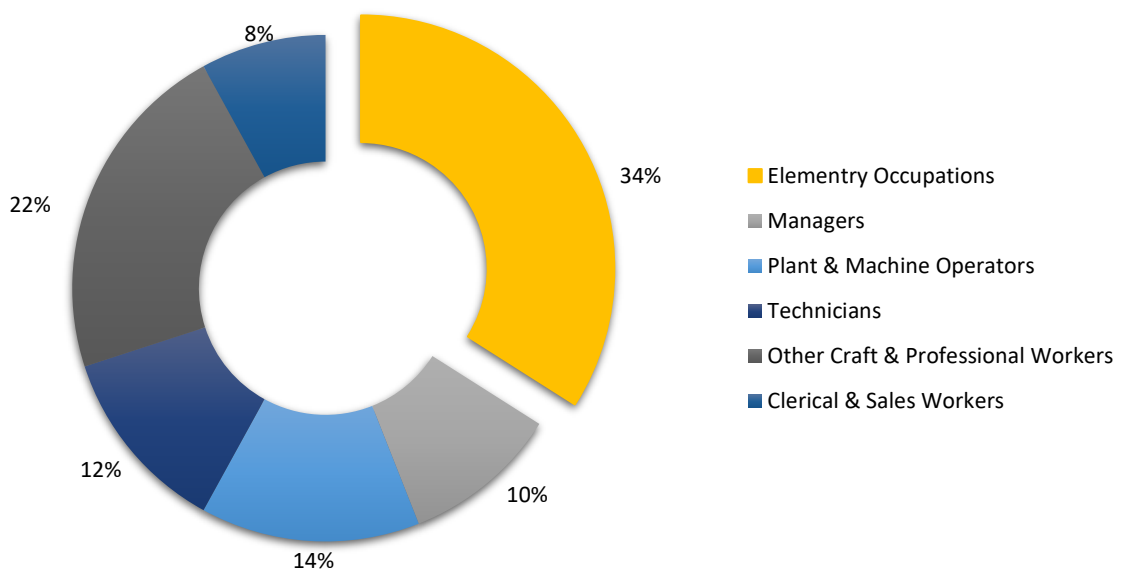


Source: Urban-Econ calculations based on Quantec (2021)

In 2019, the construction sector employed just under 1 million workers, representing approximately 5.8% of the country’s total employment (Quantec, 2021). Figure 2.2 illustrates the change in employment in the construction sector. A notable finding obtained from this Figure is that the number of workers has steadily increased since 1994. The highest number of construction workers was noted in 2018 at just over 1 million workers. As will be discussed in the latter part of this Chapter, the COVID-19 pandemic negatively influenced the construction sector’s employment metrics, which have not yet been documented. Based on the information provided, there were approximately 123 000 less jobs in the construction sector from 2019 to 2020. The decrease in the number of jobs may be attributed to the impacts of the COVID-19 pandemic in South Africa, a topic that will be discussed in greater detail in this Chapter.

In a breakdown of the occupations within the construction sector, a majority of these occupations are held by elementary occupations, which hold 34.4% of the labour force (CETA, 2021). This is followed by skilled craft workers, such as plant and machine operators (14.0%) and technicians (12.2%). Managers hold about 10.1% of the labour force (CETA, 2021).

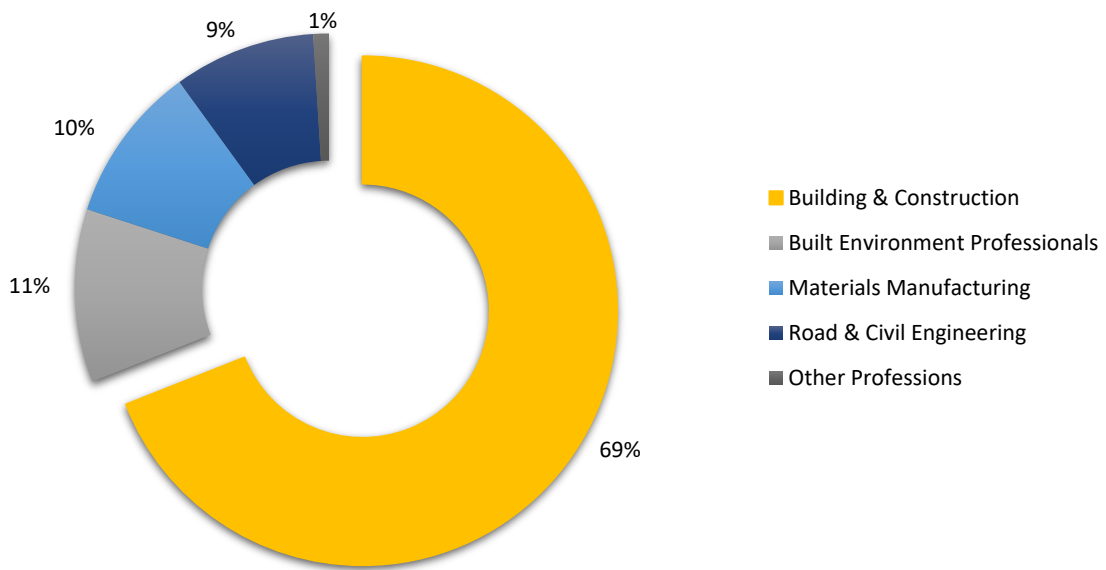
Figure 2.3: Occupations in the construction sector



Source: CETA (2021)

As noted above, the construction sector is divided into sub-sectors. Figure 2.4 below shows the breakdown of the employment per sub-sector of the construction sector; the roads and civil construction employ nearly 70.0% of the total labour force. This is followed by built environment professionals (11.2%), materials manufacturing (10.1%) and building construction (9.0%).

Figure 2.4: Labour force per sub-sector of the construction sector



Source: CETA (2021)

2.2.2. SKILLS SHORTAGE

An analysis of the hard-to-fill vacancies in the construction and built environment sector showed that there is a skills shortage in several trades within these sectors, where the most prominent shortages were observed in the managerial, professional and technicians and associate professional roles (CETA, 2021; DHET Critical Skills Shortage, 2020). This was coupled with the fact that there is currently an oversupply of unskilled workers in the construction sector and a shortage of skilled and suitable qualified employees. Soft skills, such as problem-solving and critical thinking, were also mentioned as skills shortages facing the construction sector (CETA, 2021). These skill shortages have impacted the economic growth of the construction sector and the South African economy at large.

With a specific focus in the Built Environment sector, several occupations within this environment were identified as being in short supply. Architects were identified as a profession that had an acute shortage in the South African labour market. In contrast, professions such as construction project managers, engineering managers, engineers, urban and regional planners, and surveyors were all identified as strategic priority professions. These are considered professions that are in alignment with the government’s mandate to create employment and develop infrastructure in specially designated areas within South Africa (DHET Critical Skills Shortage, 2020).

The professions listed above are all housed within the Built Environment sector, highlighting the importance of these professions play in the South African workplace and economy. Increasing the output of suitably qualified workers in these professions would thus positively influence the country’s economy.

In an analysis of the reasons as to why there is a skills shortage in the abovementioned professions, an overarching theme was due to the **lack of relevant qualifications** and lack of work experience for

these professions (CETA, 2021). Based on this, there is a “**need for higher enrolments and completion rates in technical and trade-related programmes**” in the construction and built environment sector (CETA, 2021).

In order to address the skills shortage in the construction sector, there is a need to embark on formal programmes to incentivise qualified graduates to enter the sector **through mentoring and job development programmes** (CETA, 2021). Moreover, there is a need to recognise the importance of training institutions in supplying the construction and built environment sector with suitably qualified graduates to ensure long-term sustainability and competitiveness (CETA, 2021).

2.3. POLICY OVERVIEW OF HUMAN SETTLEMENTS

This section reviews the policies that contributed to the South African human settlement environment. As mentioned in the previous section, the human settlements developments environment has undergone significant change since 1994. The department was initially named the Department of Housing (DoH) until 2009. It was changed to the Department of Human Settlements in the same year to accommodate the new philosophy and direction the department wanted to pursue. Table 2.1 below highlights policy and legislation that guided the human settlements environment in South Africa.

Table 2.1: Policy and legalisation in the human settlements space

POLICY OR LEGISLATION	PURPOSE
White Paper on Housing 1994	To provide a policy framework for sustainable housing development.
Housing Act of 1997 (as amended)	To provide for the facilitation of a sustainable housing development process.
Comprehensive Plan for the Development of Sustainable Human Settlements, 2004	To provide a strategy for the development of sustainable human settlements.
Housing Consumer Protection Measures Act of 1998	To make provision for the protection of housing consumers.
Rental Housing Act of 1999	To regulate the relationship between landlords and tenants and provide for dispute resolution.
Home Loan and Mortgage Disclosure Act of 2000	To promote fair lending practices, which require disclosure by financial institutions of information regarding home loans.
Housing Code 2000	To regulate the sustainable development and provision of for housing.

Social Housing Policy 2005	To provide an enabling environment for social housing.
Social Housing Act of 2008	To provide for the establishment of the Social Regulatory Authority in order to regulate all social housing institutions.
Property Practitioners Act of 2019	To provide for the regulation of property practitioners, regulate the continuation of the Estate Agency Affairs Board (EAAB) in a new form of the Property Practitioners Regulatory Authority, and further to provide for the transformation of the property practitioners sector through, inter alia, the establishment of the transformation fund and research centre on transformation.
Housing Development Agency Act of 2008	To identify, acquire, hold, develop and release land for the creation of human settlements as well as to provide project management services and monitor the provision of all infrastructure required for housing development.
Community Schemes Ombudsman Service Act of 2011	To provide for the establishment of the Community Schemes Ombuds Service (CSOS) and provide a dispute resolution mechanism in community schemes.
Spatial Planning and Land Use Management Act of 2013	To provide a framework for spatial planning and land use management within the Republic of South Africa.

The policies and legislation discussed in the Table above were all pertinent policies impacting the human settlements environment in South Africa. However, there are several policies and legislation that are of particular importance in the human settlements environment, namely:

- Comprehensive Plan for the Development of Sustainable Human Settlements, 2004**

The BNG Policy is aimed at eradicating informal settlements in South Africa in the shortest possible time. As part of its objectives, the Plan incorporated principles such as providing municipal engineers and professionals at a higher standard to enhance the standard of delivery. Moreover, the Plan incorporated the enhancement of settlement and housing design through **incorporating professionals in the planning and project design stages and in developing guidelines for sustainable human settlements.**

The abovementioned factors signify the importance of capacity building within the human settlements space. To this end, the Breaking New Ground policy highlighted the importance of the capacity building as a “critical component of the new human settlement plan”. Through higher learning institutions, education can assist in the capacity building of the Breaking New Ground policy.

- The Social Housing Policy, 2005**

The Social Housing Policy provides the principles for the development of social housing and provides mechanisms for creating an environment in the housing sector to ensure

development, growth, and service delivery. Among the significant features of the policy, **is the need to establish mechanisms to promote capacity building in the human settlements space.** The policy states that *“capacity building is a major prerequisite for the development of robust social housing institutions and the growth of the sector”*.

Through this, the policy puts the capacity building at the forefront of its objectives in achieving growth and success in the human settlements environment. The policy recognises, supports, and funds capacity building through training, technical assistance, and on-the-job management.

2.4. CHALLENGES ENCOUNTERED IN THE HUMAN SETTLEMENTS ENVIRONMENT

Several challenges have hampered the success of the human settlement’s environment in South Africa. As mentioned in the previous section, the human settlements environment attempted to shift its emphasis from “housing” to a more holistic framework of human settlements by integrating people into the city. However, despite this change and the successes the new NDHS has achieved in promoting sustainable human settlements, there still exist challenges in the human settlement’s environment within South Africa, the most pressing of which was the increased housing backlog.

There is a growing demand for housing in South Africa, particularly in urban areas. To date, the demand for housing far exceeds the current supply of housing, causing a massive backlog in the number of houses available. Estimates from 2015 suggested a backlog of approximately 2.3 million units, which grew at about 178 000 units per year (Public Service Accountability Monitor, 2015). Gauteng, KwaZulu-Natal, the Western Cape, and the Eastern Cape were the most affected provinces by this backlog.

This backlog has ultimately led to the development of informal settlements in and around urban areas in South Africa. In 2014, an estimated 14% of the country’s population, and 23% of the country’s urban population, were living in informal settlements without access to basic services such as potable water and refuse collection (Trading Economics, 2021). This gives rise to a host of environmental and health concerns, where a lack of basic services can negatively impact both the environment through increased pollution and poor waste removal and one’s health through inadequate sanitation.

The reasons behind this housing crisis and the under-supply of adequate housing have been attributed to the increased urbanisation trends in the country. Between 2007 and 2018, the percentage of South Africans living in urban areas has increased from 60%-65%, with most of this movement occurring in Gauteng (Statista, 2020). There is also a growing number of housing applications, which continues to grow the housing backlog currently experienced in the country (Greyling and Verster, 2012). Moreover, the budget allocated to the NDHS was only 5% of the national budget in 2014, suggesting that the opportunities to grow the sector and meet the current backlog were limited.

Another challenge of the NDHS in meeting the housing backlog is constructing housing that meets the needs of a sustainable human settlement, where its residents can enjoy the benefits that the city provides. This means not just constructing houses on the periphery or outskirts of urban centres.

2.5. HIGHER LEARNING ANALYSIS

A valuable way to increase the knowledge base and to enhance capacity building within the human settlement environment in South Africa is to incorporate human settlements themes and concepts into research and education. This can be achieved by introducing such elements into the curriculum of universities and vocational training colleges in South Africa, where professionalised and educated graduates and research outputs may assist and contribute to the issues and challenges the human settlement environment faces today.

The remainder of this section will offer a discussion on the higher learning environment in South Africa and how continued support in this area may benefit the human settlements development sector in the country.

In South Africa, there are various institutions, colleges, and universities that learners can attend to further their studies after completing secondary school. These institutions are referred to as Post-School Education and Training (PSET) facilities, and these facilities are typically divided into two overarching sectors:

- 1) Higher Education Institutions (HEI’s); and
- 2) Other education entities, such as Colleges.

Within each of these sectors, there exist several different institutions. For instance, HEI’s comprise of Public and Private institutions, such as public universities like the NMU, University of Cape Town, and Fort Hare University. Under the College education sector, there exist Technical and Vocational Education and Training (TVET) Colleges, Community Education and Training (CET) Colleges, as well as both public and private colleges. Table 2.2 below provides an overview of the number of student intake for each PSET in South Africa, where Public HEI’s comprise of the highest number of student enrolments out of all the PSET’s.

Table 2.2: Post School education and training institutions in South Africa (2018/19)

	HEI’s		COLLEGES			TOTAL
	Public	Private	TVET	CET	Private	
Number of institutions	26	135	50	9	268	448
Number of students	1 036 984	185 046	687 955	193 185	187 354	2 290 524

Source: CETA (2021)

South Africa has various PSET institutions, including 26 universities or technology universities, funded by the Department of Higher Education and Training. Despite improvements over the last decade, a small percentage of the South African population are able to access PSETs. This is primarily based the poor quality of basic education, high dropout rates, limited financial aid and low absorption into PSET institutions, particularly among universities and universities of technology (CETA, 2021). The bulk of

PSET enrolments are in universities (53.4%), which are operating at maximum capacity, rather than at vocational training colleges (46.6%).

Regarding the funding of higher learning institutions, it was found that each public university and public college comprise different funding structures and allocations. With regard to universities, the Department of Higher Education and Training has significantly increased its funding into South African universities since 2015, where the Department funded approximately R25 billion in 2015, which has now risen to over R42 billion in 2019. The increased funding was largely due to the increased volumes of students enrolling in universities across the country.

However, there still exist challenges within the higher learning environment in South Africa, where two notable challenges have been identified:

STUDENT ACCESS TO UNIVERSITIES AND COLLEGES Despite the success in higher enrolments in PSET's since 1994, a vast majority of the South African population are still unable to access and enrol in PSET's. The overarching reasons for this are based on the poor basic education standards in the country, the high levels of high school dropouts, and financial constraints and limited financial aid (CETA, 2021).

Moreover, the PSET is also recognised for its inverted 'pyramid' shape enrolment system, where most of the new enrolments are at universities rather than vocational training colleges. **Universities are currently running at maximum capacity and have limited resources and capacity to increase the size and student intake.** On the other hand, colleges have more potential to expand and offer students qualifications that will meet the artesian skills shortage the country faces (CETA, 2021).

With specific regard to human settlements development courses, vocational training colleges provide a limited number of engineering, architecture, and construction management programmes, limiting the supply of training centres that offer courses that support the human settlements development environment (CETA, 2021).

STUDENT SUCCESS Although student graduation rates have steadily increased since 2012, the graduation rate in South African PSET's still remains low. Moreover, universities are seeing higher rates of extended degree programmes, which prolong the graduation output. For instance, the NMU has seen an increase from 5.1% in 2010 to 9.7% in 2020 of extended graduation programme students (Nelson Mandela University, 2020).

From a human settlement perspective, there is also an added challenge of accessing engineering programmes at universities around the country. As mentioned above, limited universities and very few vocational training colleges offer qualifications aligned with the human settlements development environment. Moreover, many previously disadvantaged universities do not offer engineering programmes, thus limiting the student intake for such programmes to a handful of universities.

It was found only **16 of the 26 South Africa’s public universities have an Engineering Faculty (61.5%)**, of which **only six (37.5%) have a Built Environment Faculty**. Moreover, in 2020, the 26 public universities and universities of technology only had a cumulative total of 16 152 new students **enrolled in engineering programmes**, which accounts for **just 8.0% of the total new university entrants**.

The NMU is one of the 16 universities with an Engineering Faculty and one of the six universities with a Built Environment Faculty. The NMU Faculty of Engineering and the Built Environment account for approximately 17.0% of the undergraduate student intake per year. The University achieved an output of 433 Engineering undergraduates in 2019, which is 12 more than their initial target of 421 (Nelson Mandela University, 2020).

Table 2.3: Deviations of NMU’s engineering actual headcount enrolments from targets

	2015	2016	2017	2018	2019	2020
Actual headcount	384	387	384	405	421	Outstanding
Target headcount	480	384	419	428	433	421
Difference (%)	-20.0%	0,8%	-8,4%	-5,4%	-2,8%	-

Source: Selected Nelson Mandela University Annual Reports (2015 – 2020)

Despite the University meeting its graduate targets, it was noted that the University is struggling to increase enrolment in the Engineering department due to applicants' poor mathematics and physical science results. This links back to the poor standard of basic education in South Africa, where a poor grasp of fundamentals – such as mathematics and physical science – have resulted in low enrolments in analytically-driven courses, such as engineering.

Six universities in South Africa, including NMU, were identified as either offering, or are in the process of offering, courses aligned to the human settlements development environment. These universities and the human settlements development courses they offer are discussed below (Nelson Mandela University, 2018):

UNIVERSITY OF FORT HARE This university launched the Bachelor of Social Sciences in Human Settlements. Since its launch, the course has been noted to be highly successful, attracting large numbers of students.

UNIVERSITY OF SOUTH AFRICA A Bachelor of Public Administration focusing on human settlements has been launched at this university. Although the course has not yet attracted the envisaged number of students, it is expected that the student intake will increase in the course’s development over time. This was primarily attributed to the reduced costs and non-contact nature.

UNIVERSITY OF THE FREE STATE An Honours in Spatial Planning in Human Settlements was launched at this university. Due to the differing content presented in this course, it is not in direct competition with the Human Settlements Development course offered at NMU. However, a threat that has been noted is that undergraduates from NMU may instead elect to attend this course.

UNIVERSITY OF THE WITWATERSRAND	Offers a Masters in Housing programme, which has proved to be attractive to students seeking to obtain a higher degree.
UNIVERSITY OF KWAZULU-NATAL	Similarly, this university also offers a Masters in Housing degree.
MANGOSUTHU UNIVERSITY OF TECHNOLOGY	In 2018, this university was initially designing a postgraduate Diploma in Human Settlement Management. To date, it is unclear if this university has launched the programme.

These findings highlight that there is a limited supply of universities that offer programmes that are aligned to the human settlements' development environment, as well as a limited supply of students that have the opportunity to access these programmes.

2.6. IMPACT OF COVID-19

The COVID-19 pandemic caused the South African economy to come to a standstill when the South African Government declared a National State of Emergency in March 2020. This effectively resulted in a halt in economic activity in a variety of sectors, which had negative consequences for employment, economic growth, and global trade. Moreover, it has been documented that the COVID-19 pandemic will have a paradigm-shifting impact on the South African economy and will likely lead to a significant change the composition of the economy. This means that historically strong industries might struggle to survive in the wake of COVID-19, while smaller industries might thrive (DHET Critical Skills Shortage, 2020)

The COVID-19 pandemic had a significant impact on not only the construction and built environment sector in South Africa, but also on the higher learning institutions in the country. The subsequent sections consider the impact that COVID-19 has had on these respective areas.

2.6.1. IMPACT OF COVID-19 ON THE CONSTRUCTION SECTOR

Although the GVA of the construction and built environment sector has gradually been declining since 2015, as noted in the sections above, the COVID-19 pandemic had a significant adverse impact on its performance in 2020. This impact largely unfolded through the following channels:

- Direct impact on production due to the slow growth of the sector from the 2020 national lockdown;
- Supply chain and market disruption;
- Financial impact on firms and financial markets; and
- Impact on housing demand for goods and services.

In addition, the sector will be impacted in the longer-term due to government rising deficits and a decreased demand in residential and commercial projects due to high levels of unemployment and low GDP growth.

Due to the COVID-19 pandemic, the construction sector saw a negative impact in the demand of the sector, which was largely attributed to a decline in the demand for construction projects, as well as a decrease in income, which, in turn, decreased the demand for construction.

Additionally, there was a negative impact on the labour demand for the construction sector due to the first national lockdown and subsequent social distancing regulations which required shutting down many construction projects (Critical Skills List, 2020). This ultimately impacted the employment in the construction and built environment sector, with early indicators suggested that about 7 000 jobs were lost in the first quarter of 2020, which accounted for a 6.0% contraction in the sector's total employment (StatsSA, 2020).

In terms of a recovery forecast of the construction sector, a recovery timeframe of between two to three years is anticipated (Critical Skills List, 2020). However, the national government implemented its South African Economic Reconstruction and Recovery Plan, which, if implemented successfully, is likely to give infrastructure projects a high priority, which should see a faster recovery of the sector (Critical Skills List, 2020).

2.6.2. IMPACT OF COVID-19 ON HIGHER LEARNING

The Higher Education and Training Minister in a press conference in 2020, stated that the COVID-19 pandemic did not only impact on the health of the South Africa population, but also on people's ability to learn and develop in learning institutions (CETA, 2021). This was supported by the United Nations policy brief, where it was highlighted that the COVID-19 pandemic had caused one of the most significant disruptions of the education system in history. To date, the pandemic has affected over 1,6 billion students across 190 countries (Nelson Mandela University, 2020).

Due to various lockdown restrictions that were implemented in over 166 countries, schools and universities were forced to close, which impacted over 94.0% of the world's student population (Nelson Mandela University, 2020). In response to this closure, universities across the world, including in South Africa, had to implement various emergency interventions to recover the 2020 academic year. One response was the move to an online and remote teaching environment. However, there were several challenges in adopting an online teaching and learning environment; **the most notable of which is the digital divide and the lack of access to the internet.**

Approximately only 37.0% of South Africans have a consistent supply of, and access to, internet through cell phones or computers (Nelson Mandela University, 2020). This left both the Department of Basic Education and the Department of Higher Education and Training with a difficult task in continuing the academic year during the COVID-19 pandemic. Impediments to learning during this period were a lack of access to devices and internet connection and a lack of alternative and flexible teaching methods from teachers and lecturers.

In terms of student enrolment at universities, NMU accounted for a steady increase of student enrolments from 2017-2019, where the number of students at the university was 29 576 in 2019. However, due to the COVID-19 pandemic, student enrolment decreased by 1.5% in 2020 to 29 351. The decline in student enrolment was largely attributed to restrictions on international travel, and

thus affected the enrolments of international students at the university (Nelson Mandela University, 2020). While it has not yet been confirmed, the university predicted the COVID-19 pandemic would have negative consequences on student success rates and graduate outputs.

2.7. SYNOPSIS

This Chapter provided a review of literature pertaining to the human settlements development environment in South Africa, with a specific focus on its history, the policies that govern it, as well as the challenges that have impeded its success.

Moreover, the review found that there is a shortage of skilled labour within the construction sector in South Africa, highlighting the need for expanding construction and human settlement development orientated opportunities within the higher education environment in South Africa.

The Chapter also highlighted that there is an acute shortage of skills in the human settlements environment and that this needs to be addressed to:

- Fix the issues of the past; and
- Assist in the COVID-19 recovery of the construction and built environment sectors.

The Chapter also provided a discussion on the opportunities that higher education can play in overcoming the challenges of the human settlements development environment, where an increased output in professional and trained graduates may provide the skills and prerequisites required to promote a sustainable human settlements development environment. The Chapter concluded in an analysis of the impact of the COVID-19 pandemic on both the higher education sector, as well as the construction sector at large.

CHAPTER 3

PROGRAMME

REVIEW

This Chapter provides an overview of the activities of the Chair of Human Settlements Development based in Nelson Mandela University. The Chapter begins by discussing the rationale and historical development of the Chair, which is followed by an overview of its various activities and a discussion on the Chair's five primary focus areas. The beneficiaries of the Degree, the funding structures, as well as the design of the Chair are then discussed.

The Chapter concludes by discussing the human resource and financial allocations to the Chair, including presenting an organogram of the structure of the Chair of Human Settlements Development in relation to the NMU.

3.1. CHAIR RATIONALE AND HISTORICAL DEVELOPMENT

As alluded to in Chapter 2, the Department of Housing adapted its objectives and mandate from a sole focus on the provision of housing to the facilitation of the creation of sustainable human settlements and improved quality of life for households. Additionally, the historical education and training related to housing largely focused on *the construction, architecture, and planning* professions, where unique aspects of human settlements development were not dealt with a satisfactory manner. Based on this, the rationale for the creation of a Human Settlements Development orientated degree was established.

Pursuit to this, the National Department of Human Settlements and Nelson Mandela University entered into an MOA for the establishment of a Chair of Human Settlements Development with the aim of using the Chair to support the medium- and long-term agenda of the government with regard to the professionalisation of the human settlements environment in South Africa.

The Chair was established to address three main objectives in the human settlements environment:

- To respond effectively to the challenges of slow pace in the delivery of sustainable human settlements;
- Address the housing demand; and
- Pursue an ongoing research agenda aimed and yielding evidence-based solutions to daunting questions that confront the sector.

The MOA signed between NMU and the NDHS was for a five-year period, commencing in 2012 and expiring in 2017. At the conclusion of this five-year period in 2017, the agreement between the parties was extended for a further two years in line with the provisions set out in the MOA. The rationale for

the extension was to ensure the continuation and longevity of the Chair of Human Settlements Development. This addendum to the MOA extended the Chair's existence by a further two years to December 2019. Funding for this extension period was to be released in two equal tranches over 2018 and 2019.

As part of the MOA between NMU and the NDHS, NMU was expected to launch and roll-out a four-year professional academic programme, which would enable beneficiaries to graduate with a **Bachelor for Human Settlements Development**. To enhance research development and capacity building, the MOA also indicated that NMU should pursue the establishment of Masters and Doctorate programmes, allowing candidates to graduate with a **Master of Human Settlements Development**, or a **Doctorate in Human Settlements Development**. The Chair was officially established in 2012.

The Bachelor of Human Settlements Development provides learners with skills and knowledge that is associated to the human settlements development environment and management. Once graduates and learners complete their degree they will be qualified to design, develop, and implement human settlement policy, programmes, and projects. In achieving the abovementioned characteristics of a Human Settlements Development Degree, learners will contribute to social and economic transformation, which will improve the performance of the Human Settlement Environment in South Africa.

3.2. FOCUS AREAS OF THE CHAIR

The overarching purpose for the establishment of a Chair in Human Settlements Development is to facilitate co-operation, collaboration, and advancement of knowledge of reciprocity between NMU and the NDHS to support the creation of an integrated and sustainable Human Settlements Development environment within South Africa. In order to achieve this, the parties agreed to work closely with one another and combine available resources so as to achieve the objectives and purpose of the MOA.

Five overarching focus areas for the Chair were defined in a joint technical session held between the NDHS and NMU in 2018 and were derived from the primary and secondary responsibilities set out MOA. These focus areas were to be undertaken by the NMU on behalf of the NDHS as part of the Chair's activities. These focus areas were set out as responsibilities for the NMU to achieve throughout the lifespan of the Chair of Human Settlements Development. These are highlighted in the Table below. Table 3.1 below sets out the Chair's focus areas.

Table 3.1: Overarching focus areas²

KEY FOCUS AREAS	ASSOCIATED RESPONSIBILITIES
Develop and implement a four-year Bachelor's of Human Settlements Development qualification	<p>NMU's responsibility was to create, design and implement a Bachelor's Degree in Human Settlements Development.</p> <p>Additionally, NMU was required to design and develop course material for the degree, as well as monitor the programme, and submit reports outlining the successes and challenges at least once a year.</p> <p>NMU was required to support the recruitment of candidates for the Degree of Human Settlements using a range of recruitment strategies.</p>
Develop and implement a Continuous Professional Development Programmes	<p>NMU was required to provide training and capacity building courses in the form of Short Learning Programmes, workshops, and seminars to public sector officials with a focus on Human Settlements Development.</p>
Lead trans-disciplinary research and innovations aimed at Human Settlements Development	<p>NMU was required to conduct research and supervise post-graduate students in Human Settlements Development research.</p> <p>This included undertaking research in the Human Settlements Development environment to provide answers to the most pressing challenges in housing and human settlements development management practices.</p>
Provide advisory and technical support services	<p>NMU was required to provide consultation services and advice to the NDHS to support capacity building and professionalisation endeavours.</p> <p>Through these consultation services, NMU was also required to establish a Council for Human Settlement Professionals and engage with other universities, organisations and sectors in human settlement development and related education and training programmes.</p>
Establish a South African Council for Human Settlement Practitioners	<p>The Final focus area that emerged from the MOA was that NMU were required to establish a South African Council for Human Settlement Practitioners.</p>

² Associated responsibilities per key focus area were defined based on the primary and secondary responsibilities set out in the MOA.

Based on these focus areas, the Chair subsequently defined the responsibilities, as set out in the MOA, into three overarching themes to achieve sustainable human settlements development in South Africa. These themes are illustrated in Table 3.2 below, which highlight the various components the Chair has been involved with in achieving the focus areas of the MOA.

Table 3.2: Overarching themes to achieve sustainable human settlements development

RESPONSIBILITY	OVERVIEW
Teaching and Learning	<ul style="list-style-type: none"> • Undergraduate and postgraduate teaching; • Short Learning Programmes for Practitioners; • Curriculum development in the field.
Research and Innovation	<ul style="list-style-type: none"> • Masters, Doctoral and Post-Doctoral research; • Department of Science and Innovation collaboration
Community Engagement	<ul style="list-style-type: none"> • Informal Settlement Studies • EcoSUN Green Village • Institute of Human Settlement Practitioners of South Africa

It is important to identify and define the abovementioned focus areas, as it will allow the research team to plot an impact evaluation against the course, and thus determine the programme’s effectiveness since its inception.

3.2.1. BENEFICIARIES OF THE CHAIR

The Chair of Human Settlements Development has a number of beneficiaries that have benefitted from its activities since its inception. These beneficiaries are highlighted in Table 3.3 below.

Table 3.3: Envisaged beneficiaries of the Chair

BENEFICIARY	OVERVIEW
Degree learners	The candidates and graduates of the Bachelor of Human Settlements Development Degree will benefit from a NQF Level 8 qualification which will enable them to pursue employment opportunities in, or around, the human settlements development environment.
Eastern Cape Department of Human Settlements	NMU conducted various skills development and short learning programmes with a total of 540 councillors, traditional leaders, and officials from different municipalities in the Eastern Cape. The courses, and the candidates were certified.
Nelson Mandela Bay Municipality	Between 2015 and 2016, a total of 240 officials from the Housing Delivery Unit of the Nelson Mandela Bay Municipality (NMBM), completed different human settlements development training programmes.

Parliament of the Republic of South Africa	In 2017 total of 43 Members of Parliament participated in a variety of training courses and modules aimed at human settlements development. The programme was completed in November 2018.
National Department of Human Settlements	The NDHS benefited from the programme through obtaining research and insight in the human settlements’ development environment, as conducted by research provided by NMU staff and graduates. This will enable the NDHS to implement human settlement policies and agendas based on the research obtained.
Nelson Mandela University	NMU benefited from the funding opportunities provided by the NDHS to expand their department, increase learning outputs, increase student intake, and promote human settlements development learning at their institution.

3.2.2. DESIGN OF THE CHAIR

The Chair was designed through two key avenues; the structure of the degree regarding the qualification criteria and module design, as well as the governance structure. The remainder of this section discusses these two avenues in greater detail.

a) Degree Structure

The Bachelor of Human Settlements Development was established as a four-year professional academic degree with an NQF Level 8 qualification. The Degree comprises 24 modules, totalling 494 credits and requires 4 730 hours of learning per individual student, or a total of 425 970 notational hours of learning for all students throughout the Degree. The Degree is registered under the Standards Generating Body (SGB) for Housing, as well as the South African Qualifications Authority (SAQA). The SGB has ensured that the Degree meets international standards.

The degree is aimed at qualifying and developing effective human settlement managers and practitioners who can assist in meeting the objectives of the NDHS by creating sustainable human settlements development in South Africa, as well as creating and upgrading sustainable human settlements in the country. The programme provides learners with a specialist set of skills, knowledge and competencies necessary to promote and speed up human settlements development in South Africa.

Potential candidates for the Degree of Human Settlements Development are required to meet certain National Senior Certificate (NSC) requirements including:

- English, Afrikaans or isiXhosa (Home Language or 1st Additional Language) on at least a level 3 (40 – 49 %).
- NSC achievement rating of at least 4 (50-59%) for Mathematics or at least 6 (70-79%) for Mathematical Literacy.

The programme is a multi-disciplinary professional qualification which spans several fields and sub-fields. The three primary fields of study and their associated sub-fields are indicated below:

- i. Physical Planning and Construction**
 - Design and management

- ii. Business, Commerce and Management Studies**
 - Public administration
 - Generic management
 - Project management

- iii. Human and Social Studies**
 - General Social Science
 - Human-centred Development
 - Public Policy, Politics and Democratic Citizenship
 - Urban and Regional Studies

The abovementioned fields and sub-fields were taught to the candidates over the duration of the degree, with varying levels of difficulty and competency throughout the course. Since the Degree is a four-year degree, each year of study is broken into different learning objectives and different modules, with different weighting attached to each year. The candidates will be subject to both formative and summative forms of assessment, which will be used to determine competencies acquired through the learning process of the programme. Table 3.4 below highlights the modules and credits obtained per module per year of study.

Table 3.4: Module and credit overview per year of study

YEAR	MODULES	CREDITS	NOTATIONAL LEARNING HOURS ³
1st	Human Settlement Management	30	300
	Public Administration	18	180
	Economics	24	240
	Computer Literacy	6	60
	Accounting	15	150
	Sociology	10	10
	Political Studies	6	60
	Local Government Law	12	100
	Total	121	1 100
2nd	Human Settlement Management	30	300
	Public Administration	20	200
	Commercial Law	12	120
	Sociology	15	150
	House Design and Services	20	200
	Business Management	24	240
	Total	121	1 210
3rd	Human Settlement Management	30	300
	Public Administration	60	600
	House Construction and Maintenance	12	120
	Construction Management	20	200
	Total	122	1 220
4th	Human Settlement Management	30	300
	Integrated Development Management	20	200
	Property Development and Management	30	300
	Statutory Law Relating to Human Settlements	10	100
	Statistical Methods for Behavioural Sciences	7	70
	Research Methodology and Treatise	33	230
Total	130	1 200	
Degree total		494	4 730

Based on the information presented above, the total notational hours for the Degree were 428 970 hours for all the students that enrolled in the course.

b) Governance

The governance structure of the Chair of Human Settlements Development provides the framework of authority and accountability that defines and controls the outputs, outcomes, and benefits of the

³ One credit is typically equivalent to 10 notational learning hours unless indicated otherwise (Nelson Mandela University, 2012).

Chair’s activities. The governance of the Chair of Human Settlements Development can be broken down into two committees, as seen in Table 3.5 below:

Table 3.5: Committees that govern the Chair

COMMITTEE	MEETING FREQUENCY	OVERVIEW
Steering Committee	Ad Hoc, but with a minimum of two per year	<p>A Steering Committee was constituted to manage the implementation of the MOA. It was comprised of representatives from:</p> <p>The NDHS:</p> <ul style="list-style-type: none"> • The Chief Director: Capacity Building • The Director: Capacity Building <p>NMU:</p> <ul style="list-style-type: none"> • The Dean of the Faculty of Engineering, the Built Environment and Technology • The Human Settlements Programme Coordinator <p>It served as a consultative and discussion forum to enable the Parties to discuss and formulate strategies and proposals.</p>
Internal meeting	Monthly	<p>A human settlement development Chair Operations Committee sit on a monthly basis, and when the need arises. The committee receives and considers progress on the Chair’s activities, and also ratifies operational decisions and external support. The committee also prepares the Steering Committee meetings as discussed above.</p>

3.3. FUTURE PLANS FOR THE CHAIR

A strategic review workshop between NDHS and NMU representatives was convened in 2018 to review the future plans for the Chair following the conclusion of the MOA in the following year. The core purpose of the strategic review was to reflect on the role that the Chair had played in the human settlements environment since its establishment in 2013. The strategic review used a SWOT analysis to provide a high-level evaluation of the work and outputs of the Chair’s activities, identifying successes, failures, and potential future opportunities.

This assessment informed the development, a revised purpose of existence for the Chair, which outlined the future value propositions that the Chair sought to add to the human settlements environment going forward. Based on this, it was surmised that in the future the Chair should continue to pursue an agenda that professionalises the human settlements environment in South Africa through being the fore-running and thought leading centre in engineering sustainability thinking, training, education, research, and implementation in South Africa and beyond.

In order to achieve these future plans, the Chair proposed the following interventions that it would pursue (Nelson Mandela University, 2018):

- Develop and implement human settlements academic programmes and short leaning programmes;
- Undertake inter-disciplinary human settlements development research
- Foster partnerships in conceptualising, designing, and implementing innovative community based human settlement development projects
- Stimulate participation of human settlements practitioners in South African, as well as international based professional bodies

Before these future plans can be realised, the Chair will need to address several issues and weaknesses that the Chair has faced over its existence (Nelson Mandela University, 2018) including:

LOW STUDENT NUMBERS Low student enrolment numbers have been identified as a threat to the Chair’s continued functionality. Additionally, high student attrition rates, where students initially register to study a Bachelor of Human Settlements degree, but then either dropout of the course, or change courses will need to be addressed to ensure sustainable student numbers.

LIMITED AWARENESS AMONST EMPLOYERS ABOUT THE DEGREE The low employment rates after graduation have largely been attributed to limited and inadequate marketing or knowledge of the programme amongst future employers. Additionally, there exist very few formal partnerships between NMU, the Chair and potential future employers, both in the public and private sectors.

INADEQUATE STAFFING Low and inadequate staffing within the Chair has been identified as a threat for the Chair’s continued functioning. The Chair operates with a limited staff compliment, which has impacted the teaching, researching and supervising functions of the programme. This ultimately impacts the students’ success.

WEAKNESSES IN FINANCIAL REPORTING Reports of weak financial reporting have been identified as a threat to the course. The Chair often runs at a deficit and operates within an environment of severe fiscal constraints, which impacted its overall financial sustainability. This was largely attributed to a shortage of funding and sustainable income.

Inadequate performance, annual and general reporting were also identified as issues.

WEAK ADMINISTRATIVE CAPACITY SUPPORTING THE CHAIR Leadership and administrative capacity support issues were noted as a potential future threat to the Chair. The review suggested that there has been limited support from NMU’s senior leadership

from, which has resulted in a lack of coherence between the Chair and NMU.

In order to address some of the abovementioned issues, several recommendations were made in the strategic review (Nelson Mandela University, 2018). These included:

FURTHER FINANCIAL SUPPORT It was recommended that the NDHS further facilitate financial support to the Chair for the period of 2018/2019 to the amount of R3.5 million to further promote the professionalisation of the sector.

Furthermore, it was recommended that NMU should provide matching support and seek local and international donor opportunities to meet the financial needs of the programme. Additionally, the Chair should seek additional revenue through research contacts.

FINANCIAL GOVERNANCE TO BE IMPROVED It was recommended that NMU implements an improved financial governance system through the opening of new Cost Centre and ensuring that funding from the NDHS be separated from other transfers. Additionally, the day-to-day financial approval should be allocated to the intended recipient; namely the Head of the Chair of Human Settlements.

Moreover, it was recommended that funding from the NDHS should not be utilised to pay salaries to staff outside the Chair for teaching responsibilities. The Faculty should rather provide for this service per its normal operations.

IMPLEMENTATION OF AN OPTIMAL STAFF STRUCTURE In order to continue on the commitments of the MOA, it was recommended that a staffing structure in line with the NMU's Engagement Entities Policy to be implemented.

Additionally, other administrative support staff, including the appointment of a Deputy Director or Manager, a personal assistant and a programme administrator in the Chair was recommended to ensure a successful continued operation of the programme.

PROGRAMME MANAGEMENT AND SUPPORT A clear delineation of responsibilities between the Faculty and the Chair for programme management and support was recommended. This should include determining individual responsibilities aligned with student recruitment, applicant selection, programme coordination and timetabling and resource planning.

ADMINISTRATIVE RESPONSIBILITIES Recommendations pertaining to the administrative responsibilities of the Chair included:

- Rendering leadership support in implementing existing and

- future human settlement programmes, including SLPs;
- Manage academic programme enhancement for alignment with sector demands;
- Manage internal and external stakeholder relations in respect of human settlement education and research;
- Manage financial and human resources and facilitate mandatory annual planning and financial reporting.

COHESION AND COLLEGIALLY

It was recommended that senior management initiate alternative dispute resolution processes to address any existing and potential conflict that may result in tarnishing the reputation of NMU and the Chair.

According to the strategic review, implementing the above recommendations will improve the future prospects of the Chair until 2020. Key to the Chair’s future success will be addressing low student intake and high attrition rates, lack of employment opportunities after graduation, issues in financial reporting, and inadequate staffing capacity.

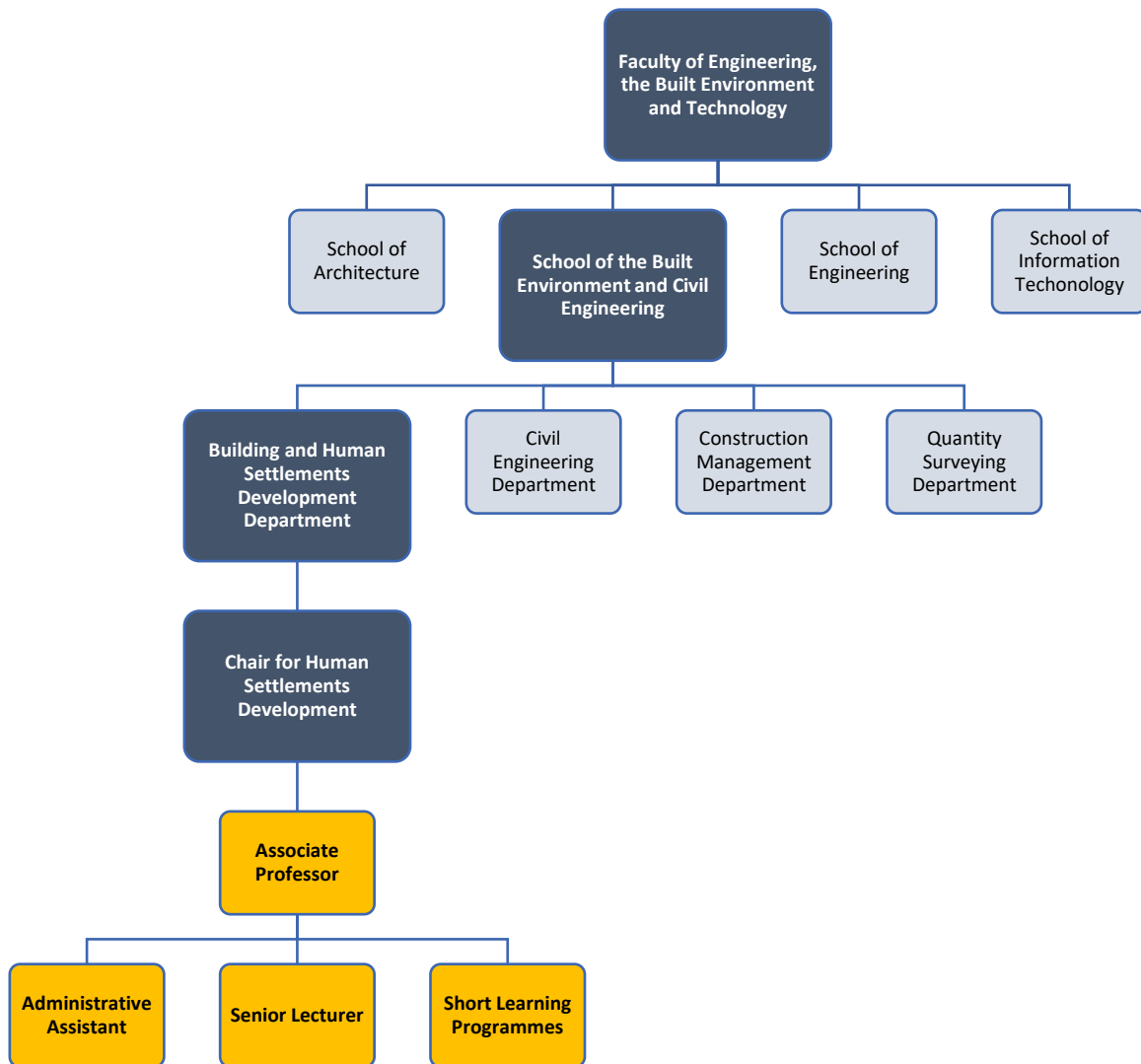
3.4. HUMAN RESOURCING STRUCTURE

The Chair of Human Settlements Development is situated within the Faculty of Engineering, Built Environment and Technology at the Nelson Mandela University. The faculty is comprised of a hierarchical structure, where schools and departments form the relevant sub-sections under the faculty’s jurisdiction.

Within the Faculty of Engineering, the Built Environment and Technology, there are four schools. Of these schools, the Chair is situated in the School of the Built Environment and Civil Engineering. Within this school, there four departments and the Chair is situated in the Building and Human Settlement Development Department. The Chair comprises of three dedicated staff but is supported by seven permanent staff and five contact lecturers in the Building and Human Settlements Department. This Department provides lecturing services on a part-time and contractual basis as part of the degree.

In unpacking the staffing structure of the Chair and the Human Settlements Department at NMU, Figure 3.1 below illustrates an organogram of the structure of Chair and the relevant faculties, schools, and departments around it, as well as the human resourcing structure of the Chair. The Figure highlights that the Chair is situated in the Human Settlements Department, where it is comprised of four positions.

Figure 3.1: Organogram of the Chair of Human Settlements Development



The Chair directly employs four staff members, with additional teaching and educational support roles provided by other Departments within the Engineering Faculty. Additionally, subject-specific subjects such as law and economics are conducted by the relevant faculties within NMU. As such, the Chair has a very limited staff complement, which is well below the recommended and targeted number of staff members required (Mbanga, 2021).

In an effort to ensure that the Bachelor of Human Settlements degree is conducted to a high standard, the Chair offers 24 modules which consist of a range of subjects and disciplines. However, due to the low number of permanent staff that are allocated to the Chair, several of the modules identified in Table 3.4 are lectured by lecturers who are not employed by the Chair. Additionally, several specialised subjects are lectured by lecturers outside of the Department of Human Settlements entirely. The Table

below shows the breakdown of the staff allocated to lecturing the Bachelor of Human Settlements degree.

The Table below presents the student/staff ration for the Bachelor of Human Settlements degree. The Table shows that the ratio steadily increased from 1:1.8 in 2014 to 1:4.0 in 2016. A slight decrease was noted in 2017, where a ratio of 1:2.8, due to an addition of two new staff as well as a decline in the overall student numbers. The highest ratio in the student/staff ratio of 1:4.3 was recorded in 2018.

These are comparatively good relative to the faculty, which has a student/staff ratio of 1:3.4, as well as the university which exhibits a ratio of 1:2.7. However, the ratios exhibited in the Chair are a function of relatively low student numbers.

Table 3.6: Staff allocations per year and staff to student ratio

	2014	2015	2016	2017	2018	2019
Academics	8	13	15	24	24	24
Administrators	1	2	5	1	1	1
Total staff complement	9	15	23	25	25	25
Staff to student ratio	1:1.8	1:2.8	1:4.0	1:2.8	1:4.3	1:3.7

Source: Mbanga (2021)

3.5. FINANCIAL RESOURCE ALLOCATION

The Chair is funded by means of unrestricted block grants received in tranches from the NDHS. These are intended to assist the Chair in undertaking its mandated activities per the MOA. The Table below highlights the grant values provided to the NMU by the NDHS over the review period. Table 3.6 highlights the transactions.

The first payment was made in the 2012/13 financial year, in which the NDHS made financial transfers to NMU in three separate tranches until 2014/15 for the establishment and initial development of the programme. These financial transfers consisted of an initial injection of R11.5 million, which was disbursed over the 2012/2013, 2013/2014 and 2014/2015 financial years (Nelson Mandela University, 2021b).

Table 3.7: Financial transactions between the NDHS and NMU (2012-2019)

FINANCIAL YEAR	AMOUNT TRANSFERRED	PURPOSE OF TRANSFER
2012-2015	R11 500 000	The creation and establishment of the chair and new qualifications
2016/17	R750 000	Training of Members of Parliament in Short Learning Programmes
2017/18	R3 500 000	Continuation of the Chair and new qualifications
2018/19	R3 500 000	Continuation of the Chair and new qualifications
Total	R19 250 000	-

This initial injection of funding was intended to facilitate the Chair’s establishment, academic programme development as well as any additional implementation costs within the first few years of the Chair’s development which did not attract subsidies from the Department of Higher Education and Training. Based on this, the initial funding went into the establishment of the Chair’s:

- Staffing capacities;
- Launch activities;
- Human settlements environment capacity surveys;
- Development of a handbook;
- Module development; and
- Material production.

The second financial transfer from the NDHS made to NMU was to fund the Short Learning Programme the Chair conducted with Members of Parliament, which was discussed earlier in this Chapter.

The third and fourth payments were made in accordance with the addendum to the MOA. As discussed previously, a second MOA was signed between NMU and the NDHS, governing the 2017-2019 period. A total of R7.0 million in funding was provided by the NDHS in terms of the MOA. The funding was released in two equal tranches of R3.5 million in the 2017/2018 and 2018/2019 financial years. This funding was used for the continuation of the Chair’s academic programme as well as the development of new qualifications.

The funding request was made against the backdrop of a financially strained higher education sector, as well as the fact that higher education was becoming increasingly un-affordable for poorer households. As a result, newly established academic programmes, such as the Chair of Human Settlements Development, had not attracted subsidies from the Department of Higher Education and Training. This, therefore, increased the financial strain on the Chair’s capacity to continue the operations of the Degree of Human Settlements Development.

Since the 2019/2020 financial year, no additional payments have been made to NMU by the NDHS. The cease in funding is attributed to effective expiry of the latest MOA, which expired in the 2018/2019 financial year.

The Short Learning Programmes (SLPs) conducted by the Chair gave way to additional sources of revenue, as is depicted in Table 3.8. These SLPs were used as a way to provide additional revenue to fund the Chair's operations. Over the review period, these **SLPs generated R7.8 million in revenue for the Chair**. It is important to note that this source of income is different from the funding provided by the NDHS as it was unincumbered. The income derived from the SLPs is from charging organisations and/or individuals for the services and qualifications that the Chair offers (Nelson Mandela University, 2021b).

The Chair was thus able to leverage an additional R7.8 million in third stream revenue from the R25.3 million in grant funding received from the NDHS. This resulted in a leverage ratio of 0.31 – that is, for **every R1.00 the Chair received from grant funding, it was able to leverage a further R0.31** in other funding.

Despite this additional revenue, the NDHS grant funding still accounted for the overwhelming majority (74.6%) of the Chair's overall income over the review period. This, however, is a function of the fact that Chair only started generating income from SLPs in 2016, four years into the initial five-year period.

In addition to the funding received from the NDHS, the first intake of students were wholly funded by the National Department of Human Settlements and the Local Government Sector Training and Education Authority for the duration of the four-year degree. This funding covered aspects which included registration fees, tuition, meal allowances, prescribed textbooks, student accommodation and research project administration.

Table 3.8 presents a high-level breakdown of the funding that was received by MNU from the NDHS for the development of the Chair of Human Settlements Development as well as the expenditure undertaken by the Chair over the review period.

The breakdown of the financial report indicates that a majority (78.4%) of the Chair's expenditure came from employee salaries and operating expenses. This is unsurprising the nature of the Chair's activities are primarily lecturing services which necessitates a high level of expertise from staff and associated high salary scales.

The second largest expenditure item after salaries and wages was general operating expenses which accounted for 19.2% of total expenditure (R5.1 million) over the review period. This line item rose sharply in the first few years of operation, before declining markedly in the latter part of the programme. As a result, 63.2% of the total operating expenses over the review period were incurred in the first four years of the Chair's existence.

Table 3.8: Breakdown of funding for the Chair (R, thousands)⁴

	2013	2014	2015	2016	2017	2018	2019	TOTAL
Income	R5 521.0	R5 934.3	R252.0	R8 533.5	R3.4	R12 409.3	R534.1	R33 187.5
NDHS Grant Funding	R5 521.0	R5 934.3	R252.0	R6 382.6	R3.4	R7 289.4	-	R25 382.6
Fees from SLP	-	-	-	R2 150.9	-	R5 119.9	R534.1	R7 804.9
Expenditure	R2 567.5	R2 907.5	R8 186.5	R10 413.7	R2 804.6	R4 228.0	R3 052.3	R34 160.1
Salaries	R1 984.8	R2 635.4	R6 939.3	R7 773.1	R2 598.6	R2 869.2	R2 000.1	R26 800.6
Operating Expenditure	R509.7	R223.9	R1 160.1	R2 173.8	R206.0	R494.5	R381.3	R5 149.3
Printing and Stationary	R3.1	R35.1	R25.0	R4.9	-	R0.1	R1.2	R69.5
Travel, subsistence & entertainment	-	R13.1	R1.4	R118.6	-	R130.3	R223.4	R486.8
Catering	-	-	-	-	-	R1.4	R46.4	R47.9
Bursary Awards External	-	-	-	-	-	-	R33.0	R33.0
Pro Admin/Agent Fee	-	-	-	R270.0	-	R732.5	R160.2	R1 162.7
Internal Transfers Expenses	-	-	-	-	-	-	R206.6	R206.6
Equipment	R69.9	-	R60.6	R73.3	-	-	-	R203.8

Source: Nelson Mandela University (2021b)

⁴ All figures have been adjusted by inflation to reflect 2020 prices.

3.5.1. FINANCIAL GOVERNANCE

The strategic review of the Chair's operations conducted by the National Department of Human Settlements in 2018 (see Section 3.3) indicated that it has experienced financial governance challenges throughout its existence, which may have contributed to substandard financial reporting. Specifically, several financial reporting issues were highlighted in the review including (Nelson Mandela University, 2018):

- A clear weakness for periodic financial reporting;
- Lack of internal audit controls;
- Poor reporting against expected outcomes of the MOA; and
- Weaknesses in cashflow management by the Chair.

In addition to these financial governance issues, the review identified the need for sourcing additional funding for the continuation of the Chair's operations (Nelson Mandela University, 2015). It was recommended that this fundraising and resource mobilisation occur through partnerships between the Chair and other entities.

3.6. SYNOPSIS

This Chapter provided an analysis of the programme overview for the Chair of Human Settlements Development at Nelson Mandela University. The Chapter highlighted key areas pertaining to the rationale for the Chair's existence, the historical developments, and focus areas of the chair, as well as the design, beneficiaries and the breakdown of the financial reports assigned to the Chair.

The Chapter also considered the human and financial resources allocated to the Chair of Human Settlements Development. The organisational review showed that the Chair has a comparable small team of specialist lectures but is supported by lecturing and support staff from the broader School of the Built Environment and Civil Engineering at NMU. This helps to significantly reduce the lecturing and administrative burden of the small team allocated to the Chair.

From a financial perspective, the Chair has successfully crowded in alternative funding income, resulting in the **attraction of R0.31 in additional funding for every R1.00 of NDHS grant funding** received. This has resulted in the Chair receiving an additional R7.8 million in income from SLPs, on top of the R25.3 million from the NDHS funding.

The findings obtained in this Chapter provided a useful analysis for paving the way for future conclusions to be drawn pertaining to the evaluation of the existence of the Chair.

CHAPTER 4

ASSESSMENT OF THE CHAIR'S PERFORMANCE

The following Chapter explores the performance of the Chair of Human Settlements Development in achieving the outcomes of the MOA and the derived high level focus areas in an effort to quantify the Chair's impact. In undertaking this assessment, cognisance is taken of the inputs into the Chair's activities, that is its financial and human resource allocation, and how these resources were leveraged to achieve the desired outcomes.

Pursuant to this, each of the Chair's core focus areas and responsibilities are unpacked, detailing the respective key focus area's outputs as well as their specific targets. This assessment further includes a discussion on the tangible and intangible impacts that the respective key focus area may have led to.

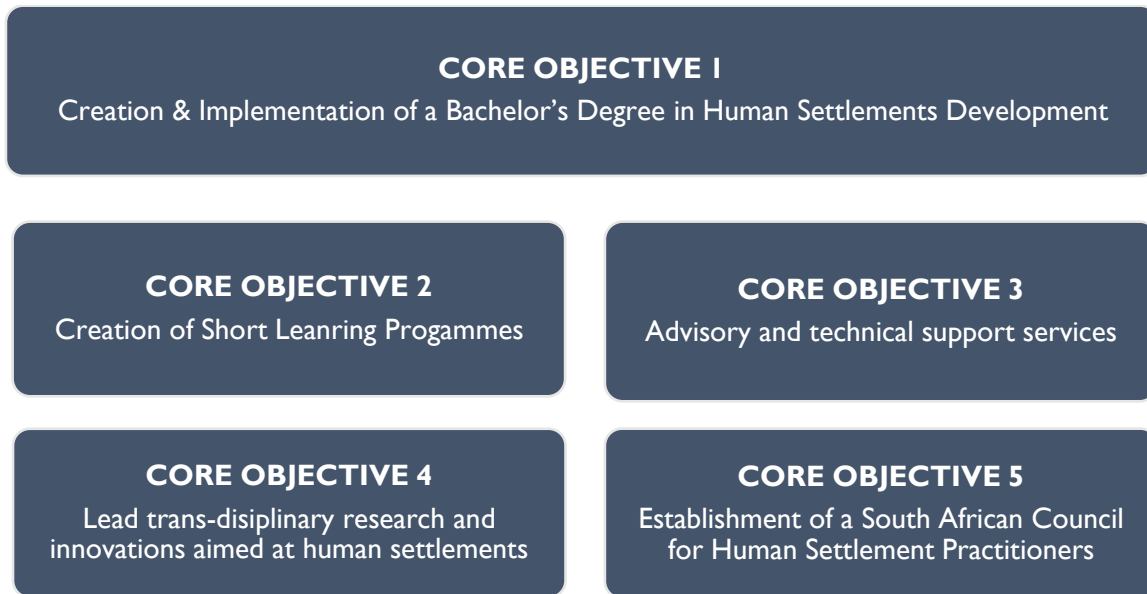
The assessment presented in this Chapter is based on the information obtained from various documentation provided by both NMU as well as the NDHS. These documents included strategic and annual reports and curriculum documents, as well as engagements directly with the Chair.

4.1. PROGRAMME OUTPUTS

The assessment of the outputs of the Chair have been organised around the MOA's key focus areas and various subcomponents, which are summarised in Figure 4.1⁵. In seeking to promote and develop the human settlements space through the implementation of indicated key focus areas, the Chair has sought to create a Bachelor's Degree in Human Settlement Development and actively recruitment candidates of the Degree of HSD, create short learning programmes (SLPs) in HSD, contribute to academic literature, research in the human settlements space, as well as provide consultative services to NDHS when necessary, and establish a South African Council for Human Settlement Practitioners.

⁵ More detail about these key focus areas can be found in Section 3.2 and Table 3.1.

Figure 4.1: Key focus areas for the Chair



Source: Nelson Mandela University (2018)

These focus areas were established in the initial MOA between the NDHS and NMU in 2013. The extent to which the Chair has delivered on these outputs is discussed in greater detail in the subsequent sections.

4.1.1. CREATION OF A BACHELOR’S DEGREE IN HUMAN SETTLEMENTS DEVELOPMENT

The first strategic objective of the Chair was the creation of a professional qualification at NMU which focused on human settlement issues in South Africa. As per the original MOA between the NDHS and NMU, it was the responsibility of NMU to create, design and implement a 4-year integrated, professional, and multidisciplinary qualification, known as a Bachelor’s Degree in Human Settlements Development. This degree was officially designated as a Bachelor of the Built Environment in Human Settlement Development (BBE [HSD]).

This key focus area was divided into four subcomponents, which will be discussed in the remainder of this section:

- a) Creation, design, and implement of a bachelor’s degree;
- b) Design and develop course material for the degree;
- c) Recruitment of students to the course; and
- d) Monitor the degree.

a) Creation, Design, and Implementation of a Bachelor’s Degree

As discussed above, as part of the MOA, NMU was required to create a Bachelor of Human Settlements Degree within the Human Settlements Department. As part of creating the degree, representatives of the Human Settlements Department submitted a New Formal Learning Programme to the university

in 2011, which detailed the rationale for creating such a degree, as well as the proposed curriculum and proposed student intake (Nelson Mandela University, 2011).

The New Learning Programme document sets out the minimum entry requirements that needed to be met if prospective students wished to enrol in the course. These requirements include:

- A minimum Admissions Point Score (APS⁶) of 36;
- Achieve a minimum of 40-49% for Home Language or 1st Additional Language (English, Afrikaans, or isiXhosa);
- A National Senior Certificate achievement rating of at least 4 (50-59%) for Mathematics or at least 6 (70-79%) for Mathematical Literacy.

The requirements listed above were tailored specifically for the entry requirements for the Human Settlements Degree. However, prospective students are required to meet additional minimum statutory requirements for the admission for a Bachelor degree, as set out by the Department of Education. These are listed below (Department of Education, 2008):

- Achieve the minimum admission requirement of a National Senior Certificate (NSC) qualification;
- Achieve a minimum of 30% in the language of learning; and
- Achievement rating of between 50-59% or better in at least four of the 20 recognised NSC subjects.

While it is noted that there are 20 recognised NSC subjects, prospective candidates for the Human Settlements Degree were recommended to have achieved a qualification rating of 50-59% in one or more of the below NSC recognised subjects. These subjects were recommended to prospective students, as they specifically relate to the Human Settlements Degree at NMU (Nelson Mandela University, 2011):

- Accounting
- Business studies
- Civil technology
- Consumer studies
- Economics
- Engineering graphics and design
- Geography
- Physical sciences

In addition to meeting the abovementioned requirements, qualifying learners were expected to meet the following requirements in order to partake in the course:

- Capacity to do self-study and complete written assignments;

⁶ An Admissions Point Score (APS) in South Africa is the converted average of a student's matric marks. Each mark is converted to a score of ten, where these scores are aggregated to an APS.

- Capacity in applying computer literacy in preparing reports, assignments and spreadsheets;
- Ability to communicate in English (read, write, speak) at higher education level; and
- Ability to manage their time.

As part of creating the academic programme, the university was required to propose a targeted student intake estimation. The envisaged student intake would assist the university and the Chair in meeting the required enrolments per year of study. The student enrolment of the degree is outlined in Table 4.1 below, which highlights the targeted and actual student intake per year of study.

With regard to the total number of students in the course across all years of study, it was expected that the number of students participating would increase from 45 students in 2014 to a maximum capacity of 150 students by 2017⁷.

However, when compared to the actual student headcount, it is evident that the figures ran well below the targeted headcount levels. All the years under the review period showed a negative variance, particularly in 2017 and 2019 where a negative variance of 84 and 61, respectively, were recorded.

Table 4.1: Targeted and actual student headcounts across all years of study

TOTAL STUDENT HEADCOUNT ⁸	2014	2015	2016	2017	2018	2019
Actual	14	36	72	66	104	89
Target	45	85	120	150	150	150
Variance	-31	-49	-48	-84	-46	-61

Source: Nelson Mandela University (2021a)

With regard to the future outlook of the programme, a review of the 2020 and 2021 student admission figures was undertaken. The data showed that there were 17 first year student admissions in 2020, with a further 28 students enrolled in 2021. This shows a significant decrease from the 54 and 39 student enrolment rates in 2018 and 2019, respectively. However, the impact of COVID-19 may have influenced the lower student enrolment figures in 2020 (Mbanga, 2021).

The total degree headcount in 2020 and 2021 was 76 and 79 students respectively. This information, as well as the 1st year student enrolments shows that the course is still currently operating at a similar student headcount level as it did between 2014 and 2019, albeit with a slightly lower first-year student enrolment rate.

⁷ It was expected that student numbers would increase and accumulate to 150 students of all years of student based on the following:

- 1st year – 45 students
- 2nd year – 40 students
- 3rd year – 35 students
- 4th year – 30 students
- Total – 150 students

⁸ Includes students from 1st to 4th year of study.

A review was also conducted of the student graduation and dropout rates within the course. The results showed that less than half of the students (38.6%) who were eligible to graduate within the minimum timeframe successfully graduated within four years. A further 14.6% of students who were eligible to graduate did so one year after the minimum timeframe. This means that 14.6% of the students entering the programme between 2014 and 2016 graduated in 5 years.

Additionally, one student graduated two years after the minimum time in 2015, taking 6 years to complete the degree, while one further student graduated three years after the minimum graduation timeframe in 2014, taking seven years to complete the degree. When aggregated, out of all the students who were eligible to graduate over the review period (i.e., students who enrolled between 2014 and 2016), only 56.0% of these students successfully graduated.

These results show that out of all the students who have graduated from the course (42 students), 26 (or 69.0%) graduated within the minimum possible time. This suggests a fairly high throughput rate⁹ of graduates, where the majority graduated within the minimum possible time.

Table 4.2: Graduation and dropout rates

	2014	2015	2016	TOTAL
Cohort (1st year)	14	22	39	75
Graduation in MT¹⁰	7	10	12	29
Graduation in MT + 1	5	4	2	11
Graduation in MT + 2	0	1	0	1
Graduation in MT + 3	1	0	0	1
Qualification change	0	0	9	9
Still registered	0	0	3	3
Dropout	1	5	15	21

Source: Nelson Mandela University (2021a)

The course, however, saw high dropout and qualification change rates. With regard to the former, a total of 28.0% of the students who registered for the course dropped out of the course. Additionally, 12.0% of the students changed their qualification during the course. When aggregated together, this means that 40.0% of the students who registered for the Human Settlements degree did not complete the degree.

A high dropout rate has consequences for the course's funding and financial sustainability. Although the course has lower-than-targeted student enrolment rates, the high dropout and qualification change rates puts further pressure on the course to be financially viable, as a significant proportion of the students enrolled do not graduate.

⁹ The throughput rate for a particular programme examines the average proportion of students registered in a year who complete the programme in the minimum time.

¹⁰ MT – Minimum Time; minimum time to complete the Human Settlements Degree.

The remaining 4.0% of students who were eligible to graduate are currently enrolled in the course and, if they meet the requirements of the course, may graduate in later years. These students did not, however, meet the requirements to graduate within the minimum timeframe of the course.

In addition to the student enrolment figures presented in Table 4.1, the MOA required that a Masters degree and PhD programme were to be implemented within the Human Settlements Department at NMU. **To date, there are no South African Qualifications Authority (SAQA) registered Master and PhD qualifications in Human Settlements at NMU.** Graduates of the Bachelor of Human Settlement Development degree are thus forced to pursue postgraduate qualifications in other fields, including Construction Management, Built Environment, Urban Studies and Development Studies, at either NMU or at other universities in South Africa.

However, from 2022 that NMU will begin offering a new Master of Human Settlement Development (by research), which was approved by the Department of Higher Education and Training and Council on Higher Education in 2018 and received a SAQA accreditation in April 2021.

The current (2021) total tuition fee for the Human Settlements Development degree R104 960. The data shows that the tuition is fairly homogenous for first, second and third years of study, where the tuition values range from R26 840 in first year to R21 550 in third year. The fourth year of study is the most expensive at R35 060 per annum. However, this higher tuition fee is due to the increased costs of associated with students completing their research treatise in their final year of study. Table 4.3 below presents the annual tuition values for each year of study.

Although Masters and PhD programmes are not directly offered through the Chair, several students are enrolled in human settlement related Masters and PhD programmes at NMU. In order to understand the costs associated with these programmes, they were also included in Table 4.3.

Table 4.3: Tuition per year of study

	1 ST YEAR	2 ND YEAR	3 RD YEAR	4 TH YEAR	MASTERS	PHD
Costs¹¹	R26 480	R21 870	R21 550	R35 060 ¹²	R6 170	R6 850

Source: Mbanga (2021)

b) Design and Develop Course Material

In establishing the degree of Human Settlements, NMU was required to design and develop course material for a NQF Level 8 degree. This also included the development of a textbook. The university was also required to design a curriculum in terms of modules, credits, outputs, and deliverables for each year of study. Course material was developed for each of the modules identified in Table 3.4. Some of the course material already existed from other disciplines within the facility but was repurposed to align with the Human Settlements needs.

¹¹ All fees exclude accommodation, meals, book allowance and any other living expenses.

¹² Fees at 4th year level include a Research Support Subsidy of R15 000, which is offered to students for research running costs towards a Treatise.

The degree was designed as a minimum four-year professional programme, in which students would earn a total of 494 credits throughout the course, which is equivalent to 4 730 notational learning hours. The curriculum structure is outline in Table 3.4 in Chapter 3.

As part of the curriculum development process, several new modules were specifically created for this course. In total, 12 new and unique modules were created for the Bachelor of Human Settlements Development degree. Of the new modules created, two were created for first year students, two for second year students, three for third year students and five for fourth year students. Across the four years of study, the new modules comprise 267 of the total 494 credits (54.0%) the Bachelor of Human Settlements degree offers, comprising of 2 650 hours of notational learning. None of these new modules were offered in any other academic programme at NMU. The new courses developed specifically for the degree are presented in Table 4.4 below.

Table 4.4: New modules developed for the degree

YEAR OF STUDY	NEW MODULES DEVELOPED
1st – 4th Year	<ul style="list-style-type: none"> • Human Settlements Management
1st Year	<ul style="list-style-type: none"> • Local Government Law
2nd Year	<ul style="list-style-type: none"> • House Design and Services
3rd Year	<ul style="list-style-type: none"> • House Construction and Maintenance • Construction Management
4th Year	<ul style="list-style-type: none"> • Integrated Development Management • Property Development and Management • Statutory Law Relating to Human Settlements • Research Methodology and Treatise

A detailed description of the core syllabus elements of the new subjects is presented below. Staff and lecturers within the Human Settlements Department were required to develop specific course material for these new modules.

HUMAN SETTLEMENT MANAGEMENT

This subject is offered from 1st year up until 4th year, comprising of two to three modules in each year of study. The modules range from **Basic Principles and Theory of Human Settlement Development and Management** in first year to **Economic Development and Environmental Impact Management** in fourth year.

While each module in each year has a different outcome, the main purpose of the subject is to provide learners with specialist knowledge to apply project management theory and techniques in all the phases of human settlement development and maintenance programmes and projects.

In addition, the subject provides learners with the required knowledge to participate in the policymaking, planning, and management of economic

development and environmental impact and protection programmes and projects for human settlements together with other professionals.

LOCAL GOVERNMENT LAW

This subject is offered to 1st year students to assist learners with gaining knowledge of all legislation that is relevant to local government management.

HOUSE DESIGN AND SERVICES

This subject is offered in 2nd year, and is a two-semester subject, comprising of two modules including:

- House Design and Related Building Standards; and
- Services and Layouts of Residential Development.

The purpose of this subject is to introduce learners to basic approaches to house design and building standards. In addition, the subject aims to inform learners on basic approaches to site planning, design and development and the layout of services.

HOUSE CONSTRUCTION AND MAINTENANCE

This is a 3rd year subject offered in one semester and comprises a single module. The module introduces learners to house construction processes, methods, and materials, as well as the technical maintenance of houses.

CONSTRUCTION MANAGEMENT

This module is offered in the 3rd year of study. It is a multi-semester course, offering two compulsory modules including:

- Introduction to the Built Environment and Construction Management; and
- Construction Contracts.

The purpose of this course is to provide the learners with the knowledge required to oversee the construction of infrastructure and house building contracts from a client's perspective. Additionally, the course is aimed at introducing learners to construction contracts and contractual processes, providing them with knowledge required to supervise construction contracts from a legislative and contractual perspective.

INTEGRATED DEVELOPMENT MANAGEMENT

This module is offered to 4th year students and is comprised of two semester-long modules including:

- Integrated Development Management: Theory, Policies and Practices; and
- Geographic Information Systems (GIS) for Human Settlement Managers.

The purpose of this subject is to develop the learners' insight in all the branches of development management, specifically with regard to

sustainable human settlement development and management and integrated development planning. In addition, the course aims to provide learners with the knowledge required to apply GIS in the planning and implementation of human settlement development.

PROPERTY DEVELOPMENT AND MANAGEMENT

This is offered to 4th year students and is separated into two semesters, comprising the following three modules:

- Property Development and Management;
- Property Investment and Finance; and
- Property Economics and Valuations.

The purpose of the subject is to provide the learner with sound knowledge, understanding and insight into land and property development and management to optimise returns on investment. The subject also provides learners with an understanding of the economic aspects influencing the value of land.

STATUTORY PROPERTY LAW

This is a single module subject offered to 4th year students. The purpose is to facilitate learners in gaining knowledge of all legislation that is relevant to the acquisition, development and management of land and property for housing and human settlement development and management.

RESEARCH METHODOLOGY AND TREATISE

This is a single year-long module that is offered to 4th year students for the purpose of providing learners with knowledge and understanding of research methodologies, methods, and instruments of research and to write a sound, scientific and academic research proposal of excellent quality.

In addition to these new modules, a Human Settlements **handbook** was developed for students, as well a **book** entitled “Introduction to Human Settlements Management”. The book was published in 2013 and was written for use by all first year BHSD students from 2014 onwards. The “Introduction to Human Settlements Management” book was reviewed at a Human Practitioners Workshop. The book was soft-launched during the Institutional Research Theme launch in 2014.

In order to meet the teaching requirements of the curriculum the creation of the programme, academic staff were assigned to the course. Table 4.5 below highlights the permanent positions that were *intended* to be created to lecturer and administer the degree. Based on the documentation provided, six permanent positions were intended to be filled, which differs from the actual organogram presented in Figure 3.1. As such, the Human Settlements Department at NMU is viewed as being understaffed given the difference between the proposed departmental structure and the actual staff complement (Mbanga, 2021).

Table 4.5: List of permanent staff for the Degree of Human Settlements

POSITION	KEY ROLE
Programme Co-ordinator and Professor of the Built Environment	Programme management, lecturing and research in Human Settlement Management
Professor (Public Administration)	Lecturing and research in Public Administration
Professor	Lecturing and research in Construction Management
Senior Lecturer	Lecturing and research in Building and Quantity Surveying
Lecturer (Human Settlement Management)	Lecturing and research in Human Settlement Management
Administrative Assistant (Human Settlement Management)	Programme Administration

Source: Nelson Mandela University (2019)

Since the curriculum focused on course work in areas outside of the Building and Human Settlements Development Department at NMU, various other permanent academic staff members from a number of other NMU departments lectured degree participants, based on the list of key subjects presented in Table 3.4. According to the New Formal Learning Programme, the alternative permanent staff all met the appointment requirements of the NMU appointment policies and were well experienced and suitably qualified to fulfil their respective roles.

c) Monitor the Degree

In order to effectively monitor the activities of the Chair, a variety of reports were compiled by the Chair, which were presented to the NDHS on an annual basis. The principal monitoring document was the annual report which highlighted key activities of the Chair in that specific year of review. The activities that were presented in these reports included aspects such as research projects and outputs, collaborations and conferences attended, marketing and press coverage activities, finances, and governance agreements. These annual reports commenced in 2014 following the commencement of the Bachelor of Human Settlements Degree and concluded in 2018.

In addition to the annual reports, the Chair submitted an additional two monitoring reports to the NDHS. Firstly, a Chair-end report was published in 2019, which presented a detailed summary of the Chair’s activities under the review period from 2013 to 2019. In addition, the Chair published a Strategic Report in 2018, following a two-day strategic workshop held between NMU and the NDHS, which highlighted direction and operations of the Chair.

Several challenges and constraints that were experienced by the Chair throughout the duration of the MOA were noted within the annual reports that were submitted. These included (Nelson Mandela University, 2014, 2015, 2016, 2017):

- Scholarship programme constraints, including uncertainty of funding of students in BHSD.
- General unsatisfactory students’ academic performances, particularly for 1st and 2nd year students.

- Prospective students not meeting the minimum APS of 36. This reduced the intake of students in 2014.
- Curriculum content gap on Informal Settlements Upgrading. Attempts to rectify it unsuccessful.
- The Chair functioned throughout 2014 without an appointed Chair Head.
- Acute financial constraints for operational and maintenance staff that impacted the sustainability of the Chair
- Poor class attendance and lack of commitment by students.
- The 2016 Fees Must Fall Student Protests had an impact on the functioning and management of the programme. On-campus teaching ceased and blended learning explored.
- Declining enrolment figures in BHSD.
- Critical staff shortages

As a part of the monitoring of the Chair, and outlined in the MOA, the Chair was required to attend steering committee meetings with the NDHS. These meetings were used to provide strategic oversight and guidance for the Chair. Further to the number of steering committee meetings conducted from 2014 to 2019, Table 4.6 below presents the composition of the steering committee meetings. The Table highlights the composition of the NDHS, NMU and other representatives who attended the steering committee meetings over the review period.

Table 4.6: Number of steering committee meetings held over the review period

	2014	2015	2016 ¹³	2017 ¹⁴	2018 ¹⁵	2019	Total
Number of SC meetings	4	5	2	2	4	2	19

Source: Nelson Mandela University (2014-2019)

The composition of the steering committee meetings varied from meeting to meeting (Nelson Mandela University 2019). Several representatives of the organisations attended the meetings consistently, while other representatives attended the meetings less frequently. It is important to note that the representatives who attended the meetings were calculated based on the number of steering committee meetings held across the review period, as noted in Table 4.6.

The composition showed that there were 14 unique officials who represented NMU over the review period. Additionally, there were 11 unique officials who represented the NDHS over this period. In a breakdown of the officials who attended the steering committee meetings within each organisation, the following was found:

¹³ Multiple additional meetings were held with stakeholders in 2016 in the preparation of the inaugural National Human Settlements Conference hosted by the Chair.

¹⁴ Included a Special Meeting held in April 2017.

¹⁵ Included both a strategic planning workshop held in April 2018, and a special meeting held with NMU’s deputy vice chancellors in July 2018.

- **Of the NMU officials:**

- Only 21.4% of the unique NMU officials sat in the steering committee meetings for one year;
- Only 7.1% of the unique NMU officials sat in the steering committee meetings for all 6 years of the review period; and
- A further 7.1% of the unique NMU officials sat in the steering committee meetings for 5 of the years.

Although there were 14 unique NMU officials who were present at the steering committee meetings, a further breakdown of these officials shows that there was limited continuity in their attendance. There were only three NMU representatives that sat in all the steering committee meetings for a period of one year. Furthermore, only one official was present at all of the steering committee meetings under the review period, while only one official sat in the steering committee meetings for five years.

- **Of the NDHS officials:**

- Only 54.5% of the unique NDHS officials sat in the steering committee meetings for one year;
- 18.2% of the unique NDHS officials sat in the steering committee meetings for all 6 years of the review period; and
- A further 9.0% of the unique NDHS officials sat in the steering committee meetings for 5 of the years.

While only 11 unique officials represented the NDHS in the steering committee meetings over the review period, the continuity of the representation of the NDHS officials was slightly better compared to the representation of the NMU officials. The analysis showed that six NDHS officials attended all the steering committee meetings for a period of one year. Furthermore, similar to the NMU representation, only two NDHS officials were present at all of the steering committee meetings under the review period, while only one NDHS official sat in the steering committee meetings throughout five of the six years of the review period.

The limited consistency of representation in the steering committee meetings from both MNU and the NDHS is vital to note. Limited consistency in meetings such as these can negatively impact the Chair's functioning as institutional knowledge cannot be effectively created. A steering committee's role is to provide advice, make decisions, resolve issues, and ensure the delivery of the project outputs. Therefore, continuity of representation and leadership from officials from NMU and NDHS are essential in ensuring the Chair meets its outputs.

Table 4.7: Number of steering committee representatives per organisation

	2014	2015	2016	2017	2018	2019
NMU	6	9	7	8	6	6
NDHS	6	10 ¹⁶	5 ¹⁷	3	4	4
Other	-	1	-	-	-	-

Source: Nelson Mandela University (2021c)

d) Recruitment of Students

As part of creating and rolling out the Human Settlements Degree, it was stated in the MOA that NMU would be required to actively of students to participate in the course. Pursuant to this the Chair pursued a range of different recruitment strategies over the review period to attract students and increase enrolment. The Table below highlights the actual and the targeted number of students enrolled in the Human Settlements Degree.

As noted in the Table, the targeted first-year student intake was expected to accommodate for 45 first-year students in each year of study. However, as presented in Table 4.8, the actual targeted student enrolments fell well below the targeted student enrolment in all years from 2014 to 2019. The net result of this was that, of the targeted enrolment figure of 270 over the review period, only 181 first-year students actually registered for the degree – just 67.0% of the target.

The negative variance in first-year student enrolments was most acute in 2014 and 2017, when the actual figures were 31 students lower than the target figure. Conversely, 54 students were registered in 2018 which exceeded the targeted student enrolment figure, making this the only year over the review period to register a positive variance.

Table 4.8: Targeted and actual first-year student enrolment figures

	2014	2015	2016	2017	2018	2019	TOTAL
Actual	14	25	43	14	54	31	181
Targeted	45	45	45	45	45	45	270
Variance	-31	-20	-2	-31	+9	-14	-89

Source: Nelson Mandela University (2021a)

To achieve these enrolment targets, NMU pursued a number of marketing recruitment strategies including using:

- Word of mouth;
- Social media;

¹⁶ Included **four invited representatives**, three of whom came from the NDHS, while the other was a representative from the Eastern Cape Department of Human Settlements.

¹⁷ Included **one invited representative** from the NDHS.

- Posters during university Open Days;
- Print media; and
- Participation in Career Expos.

The Chair specifically attempted to recruit students for the course through the avenues presented in Table 4.9. As seen in the Table, the Chair adopted several marketing strategies, which included using newspapers, magazines, radio services, social media, exhibitions, societies, and television to market the Chair and the course. The marketing strategies were deployed between 2015 and 2018.

Table 4.9: Recruitment strategies adopted by the Chair

RECRUITMENT TOOL	ORGANISATION(S)	DESCRIPTION
Newspapers/ Magazines	Local Government Handbook	An advertorial was placed in the Local Government Handbook, which detailed the Human Settlements Degree at NMU.
	Earthworks Magazine	Advertorials were placed in this magazine advertising the course.
	Kouga News	This covered the launch of the Short Learning Programmes with the Eastern Cape Department of Human Settlements.
	Herald	A student published an article in this newspaper highlighting the challenges facing the human settlement environment in the NMBM and the ways in which the course may assist in overcoming such challenges.
		A student published an article in this newspaper highlighting the challenges of rising student costs and whether intervention from human settlements could overcome this.
Daily Despatch	The Daily Despatch was used to advertise the inaugural Human Settlements Conference that NMU hosted in 2016.	
Radio	Algoa FM	The Chair was interviewed for the launch of the Eastern Cape Short Learning Programmes to disseminate information about other programmes offered by the Chair, including information about the Degree.
	Keith Ngesi Radio	A radio interview was done during 2017 in the occasion of the Intervarsity Human Settlements Students Seminar.
	Ngqushwa FM	A radio interview with the Head of Chair was done conducted.
Social Media	Facebook	The course was advertised on the social media Facebook page of the Human Settlements Students Society

Exhibition/Expos	University Open Days	The NMU Open Day was used to market the programmes offered by the Chair.
	National Celebration of OR Tambo	NMU shared an exhibition stall with the Eastern Cape Department of Human Settlements, showcasing the course.
Societies	Human Settlements Students Society	This society played a significant role in the attraction of new students for the 2018 academic year.
Television	Bay TV & SABC	The Chair was interviewed for the launch of the Eastern Cape Short Learning Programmes to disseminate information about other programmes offered by the Chair, including information about the Degree.

Source: Nelson Mandela University (2015, 2016, 2019)

Adapted from Table 4.9 above, Table 4.10 below presents an overview of the recruitment strategies undertaken by the Chair per year. The data shows that a majority of the recruitment strategies occurred in 2017, where a total of eight strategies were implemented. In 2015 and 2016, four recruitment strategies took place, respectively, while only one recruitment strategy occurred in 2019. It is important to note that no recruitment strategies occurred in 2014 or 2019.

Regarding the specific recruitment strategies undertaken, the newspaper and magazine recruitment strategy was most frequently used, at six times (35.3%) under the review period. Exhibitions and expos were the second most frequently used at five (29.4%). Television, societies, and social media recruitment strategies were each used once (5.8%) over the review period.

Table 4.10: Breakdown of recruitment strategies by year

	2015	2016	2017	2018	TOTAL
Newspaper/Magazine	2	2	2	-	6
Exhibitions/Expos	1	1	2	1	5
Radio	-	1	2	-	3
Social Media	-	-	1	-	1
Societies	-	-	1	-	1
Television	1	-	-	-	1
Total	4	4	8	1	17

Source: Nelson Mandela University (2015, 2016, 2019)

In an effort to drive recruitment numbers, several of the students who were enrolled in the Human Settlements Degree received financial sponsorship support in the form of bursaries. The bursaries were from a variety of different organisations participating in the human settlement's environment in South Africa. Several of these bursaries fully covered student registration fees, tuition fees, accommodation, prescribed textbooks, and meals. This highlights the financial significance some bursaries carry.

Table 4.11 below presents the number of organisations that offered bursaries to students in varying study-years and of varying values who were enrolled in the Human Settlements Degree. The Table shows that the number of unique organisations that provided bursaries increased from one organisation in 2014 to eight organisations in 2016. However, the number of organisations that provided bursaries then decreased post-2016, to a point where no organisations offered bursaries to students in 2019.

The decrease in the number of bursaries from 2017 to 2019 were noted as a serious matter (Nelson Mandela University 2015), which may impact the student enrolment figures for the course. This is because sponsorship and bursaries play a crucial role in attracting students to enrol in the Human Settlements Degree at NMU (Mbanga, 2021).

Student achievement awards were also presented to students who displayed academic progress over their time whilst studying towards the Human Settlements Degree. As presented in Table 4.11, a total of 14 unique organisations provided achievement awards over the review period.

Table 4.11: Number of organisations providing bursaries and/or achievement awards

AWARDS ¹⁸	2014	2015	2016	2017	2018	2019
Bursaries	1	2	8	2	1	-
Achievement Awards	-	1	5	8	5	3

Source: Nelson Mandela University (2015, 2016, 2019)

4.1.2. CREATION OF SHORT LEARNING PROGRAMMES

The second key focus area was the implementation of Short Learning Programmes (SLPs). As per the MOA, the Chair of Human Settlements Development Department was required to provide training and capacity building courses in the form of Short Learning Programmes (SLPs), workshops, and seminars. These capacity building courses were intended to have a focus on human settlement development in the South African context and were intended to be offered to a range of professionals in the human settlement environment, including public sector officials. The objective of conducting such training sessions was to promote the transfer of skills to the participants.

The Chair developed SLP course material from 2013 to 2014, while it conducted the first round of SLPs in 2015. Different modules were created for each SLP and were conducted by NMU Human Settlements Department representatives. The modules included topics such as Construction and Housing Management, Sustainable Human Settlements Planning and Property Law and Finance, to name a few.

The SLPs were delivered to a variety of stakeholders, which included representatives of the Nelson Mandela Bay Municipality, the Eastern Cape Department of Human Settlements, and the Parliament of the Republic of South Africa. Most of the learners who participated in the SLPs were human

¹⁸ It is important to note that these figures cannot be totalled, as some organisations provided both bursaries and achievement awards.

settlement practitioners, which comprised a mix of municipal officials, councillors and traditional leaders. Table 4.12 below presents the number of learners who participated in SLP courses, as well as the number of SLPs conducted from 2015 to 2018.

Table 4.12: Number of SLP Participants (2015-2018)

	2015	2016	2017	2018	TOTAL
SLPs conducted	4	24	Unknown	Unknown	28
Number of Leaners	96	424	43	276	839

Source: Nelson Mandela University (2015, 2019)

With regard to the Eastern Cape Department of Human Settlements SLP, this contract was signed for a two-year period in 2015. The focus of the SLP was for the training of training councillors, traditional leaders and officials from different municipalities within the Eastern Cape. In total, 540 human settlement PR practitioners from the Eastern Cape Department of Human Settlements participated in numerous SLPs over the contract period.

SLP REVENUE GENERATION

It is important to note that the SLPs conducted by the Chair were used as a revenue generating mechanism to complement its grant funding. A total of **R9.0 million** worth of revenue was generated from the SLPs during the review period. This comprised revenue received from the following organisations through conducting SPLs to human settlement practitioners:

- **Nelson Mandela Bay Municipality representatives:** R2 100 000
- **Eastern Cape Department of Human Settlements representatives:** R6 200 000
- **Parliament of the Republic of South Africa representatives** R750 000

The majority of the revenue received (68.5%) from the SLPs was from the Eastern Cape Department of Human Settlements. A two-year contract was signed between the Chair and the Eastern Cape Department of Human Settlements, where over **540 human settlement practitioners from this Department participated in various SLPs.**

An additional benefit from conducting the SLPs was that the Parliament of South Africa has now **established a R3.5 million bursary programme for Members of Parliament** to the amount to participate in future SLPs. This highlights the importance of the SLPs, where the Parliamentary Members were reached through the Chair.

In addition to the above, a sum of R13 million, was to be provided by the Construction Seta, for the training of artisan human settlement practitioners in 2015, which would have contributed to significant revenue generated by SPLs (Nelson Mandela University, 2015). However, due to managerial issues experienced within the Construction SETA, negotiations broke down and the SLP initiative could not come to fruition.

Numerous SLPs were conducted over the contract period, where a large number of human settlement practitioners were reached. A total of 839 learners participated in 28 SLPs conducted by the Chair between 2015 and 2018. As noted in Table 4.12, 2016 saw the highest number of learners participate in SLPs, where 424 learners participated across 24 SLPs during that year. Beneficiaries of these SLPs were organisations such as the Eastern Cape Department of Human Settlements, the Nelson Mandela Bay Municipality, and Members of Parliament.

4.1.3. CONDUCT RESEARCH IN HUMAN SETTLEMENTS DEVELOPMENT

The third key focus area for the Chair was to conduct research within the human settlements development space to contribute to the development of related literature as well as providing evidence-based solutions to issues facing the human settlements space in South Africa at large. Building on this point, NMU was also required to supervise post graduate students in providing research outputs within the human settlement's development space.

This section will also discuss the conferences the Chair hosted and participated in, with key conferences discussed in greater detail. The section further discusses the research collaborations that were undertaken by the Chair during the review period. Therefore, this section is broken down as follows:

- i. Student research outputs;
- ii. Conferences, seminars and symposia; and
- iii. Research collaborations

a) Student Research Outputs

A total of **85 research outputs** were developed by Honours, Masters and Doctoral affiliated with the Chair of Human Settlements Development between 2014 and 2019. This academic research focused on various topics within the human settlements space, including the sustainability of rural housing, green building guidelines, sustainable water frameworks and resolving service delivery backlogs (Nelson Mandela University, 2019). The research was undertaken by registered students, supervised by academic staff from within the Human Settlements Department at NMU. Table 4.13 shows the student research outputs from 2014 until 2019.

It is important to note that the research outputs by Masters and PhD students highlighted in the Table are *not* direct outputs of the Chair, but rather research outputs undertaken by students who are studying, or have studied, human settlement related topics at NMU. Therefore, for the purposes of this report and the data presented, these outputs were included as research outputs derived from students studying human settlement related topics at NMU.

Table 4.13: Completed student research outputs

	2014	2015	2016	2017	2018 ¹⁹	2019 ²⁰	TOTAL
Bachelors	-	-	-	11	14	19	44
MSc	3	2	2	3	16	4	30
PhD	-	1	-	1	8	1 ²¹	11
Total	3	3	2	15	38	24	85

Source: Nelson Mandela University (2019)

The Table shows that a total of 85 research outputs were recorded over the review period. Key to this were the Bachelor research outputs, which accounted for 51.8% of all research products generated. The Masters research outputs contributed to 35.3% of the total outputs, while the PhD research outputs accounted for 12.9% of the total outputs.

In a breakdown of the research outputs recorded per year, 2018 accounted for the highest number of research outputs at 44.7%. This was followed by 2019 (28.2%), while 2017 accounted for 17.5% of the total research outputs. It is important to note that Bachelor research outputs were only recorded from 2017 onwards, due to the fact that these students were only eligible to graduate in 2017 following their registration for the Degree in 2014.

b) Conferences, Seminars and Symposia

The Chair participated in a total of 24 conferences, seminars and symposia which it either hosted (7; 29.2%) or attended (17; 70.8%). Table 4.14 below presents the total number of conferences, seminars and symposia the Chair hosted and attended. As noted from the Table, 2016 and 2019 saw the Chair host and attend a total of six conferences respectively, while 2015, 2017 and 2017 saw the Chair host and attend four conferences respectively.

Table 4.14: Conferences, seminars and symposia hosted or attended by the Chair

	2015	2016	2017	2018	2019	TOTAL
Hosted	2	2	0	0	3	7
Participated	2	4	4	4	3	17
Total	4	6	4	4	6	24

Source: Nelson Manda University (2015, 2016, 2017, 2019)

Over the 2015 to 2019 period, the Chair hosted a combined total of seven conferences, seminars and symposia. Two conferences were hosted in 2015 and 2016 respectively, and a further three conferences in 2019. One of the important conferences hosted in 2019 was the South Africa Sweden

¹⁹ One Bachelors student, nine Masters' students, and eight PhD students were continuing with their respective degrees in 2018.

²⁰ All the students registered in 2019 were continuing with their degrees as of 2019.

²¹ The PhD student was completing research as a post-doctoral fellow.

Universities Forum Symposium in 2019. These Conference Proceedings were published in 2019 under the theme “Sustainable Urbanisation Through Research, Innovation and Partnerships”.

The most significant conferences hosted by the Chair over the review period was the inaugural National Human Settlements Conference in 2016, which is discussed in greater detail in the Box below.

NATIONAL HUMAN SETTLEMENTS CONFERENCE

The inaugural National Human Settlements Conference was held in 2016, in partnership with the National Department of Human Settlements. This three-day conference was of national and international significance, with **650 delegates** representing for all aspects of human settlement space attending from South Africa, Nigeria, Kenya, Columbia, and the United States of.

The conference was convened under the theme: *Sustainable Future Cities and Human Settlements Begin Today*, which was broken down into eight sub-themes, including:

- Architecture and urbanism
- Human settlements planning, development, and maintenance
- Sustainable Livelihoods
- Human settlements governance
- Science and Technology innovations for sustainable human settlements
- Service delivery improvements and financing models
- Inter-disciplinary and multi-sector approaches
- Property development

Several academic papers relating human settlements were presented, with the support of a multi-disciplinary scientific committee. Exhibitions linked to human settlements innovations were also on display during the conference.

The **proceedings** of the National Human Settlements Conference were **published in 2018**.

In addition to the hosted conferences, the Chair also attended and participated in combined total of 17 conferences, seminars, and symposia from 2015 to 2019. The Chair participated in four conferences in 2016, 2017 and 2018 respectively, as well as a further three conferences in 2019 and two in 2015. These conferences were both attended in South Africa and abroad.

Conferences of international importance that the Chair attended were the 2015 National Housing and Redevelopment Officials Summer Conference in Los Angeles, United States of America, where the Chair was invited to deliver a speech. Additionally, the Chair participated in both the Regional and National Habitat 111 conferences, where the Chair formed part of the South African delegation for the National Habitat 111 conference in Ecuador in 2016. This conference adopted a New Urban Agenda that United Nation states were expected to implement in the next twenty years.

c) Research Collaborations

From 2015, the Chair also fostered a range of strategic partnerships with various institutions and scholars locally and internationally to promote research collaboration in line with the responsibilities set out in the MOA. These collaborations focused on training and education, curriculum development, innovative community engagement initiatives and research. The Chair **undertook a total of 12 collaborative projects** over the review period with a mix of international and domestic different organisations, nine of which were conducted at a national scale, while three were conducted internationally.

In a breakdown of the research collaborations per year, the highest number of research collaborations occurred in 2018, where a total of seven research collaborations occurred. Additionally, 2018 saw the highest number of both national and international research collaborations, where five national and two international research collaborations took place during this period. There were no national or international research collaborations in 2015 and 2017.

Table 4.15: Research collaborations by type undertaken by the Chair

	2014	2015	2016	2017	2018	2019	TOTAL
National	1	-	3 ²²	-	5	-	9
International	-	-	-	-	2	1	3
Total	1	-	3	-	7	1	12

Source: Nelson Manda University (2015, 2016, 2017, 2019)

A selection of these strategic research collaboration that have had a significant impact on the South African human settlement space. Table 4.15 above summarised the research collaborations, where a detailed description of the notable research collaborations are discussed in detail below:

**ECOSUN GREEN
VILLAGE SOUTH
AFRICA-GERMANY
SCIENTIFIC
COOPERATION**

This research project was on the conceptualisation and demonstration of a green village in the Ndlambe Municipality, near Kenton-on-Sea in the Eastern Cape. This project saw a partnership between the Chair of Human Settlements Development and Ecological Group in the University of Potsdam (Germany) as well as various other public sector entities in South Africa (including the CSIR, DSI, ECDHS).

**SOUTH AFRICA-
SWEDEN UNIVERSITY
FORUM**

The Head of the Chair was appointed to serve in an Academic Advisory Committee on Urbanisation and 21st Cities of South Africa – Sweden University Forum. The Forum is made up of 23 South African Universities and 12 Sweden Universities, with the sole purpose of promoting transdisciplinary research collaboration and knowledge exchange between universities and research councils between South African and Sweden. The Chair was involved in the development of a joint research project on Urban Informality.

²² Two of these collaborations entailed proposals submitted to the Estate Agency Affairs Board and General Motors South Africa. The latter collaboration was for undertaking an employee housing needs survey for the company’s Employee Assisted Housing Scheme. This project was terminated by the company.

**DAAD GERMAN
ACADEMIC
PROGRAMME**

This project is a German funded partnership student exchange and learning programme between the Wismar University in Germany, and various faculties and departments within NMU. Students from both the Department of Building and Human Settlements, and students from the Wismar University partook in four different SLPs to enhance learning exchanges between the two institutions. The programme is funded for a period of three years, from 2019-2022.

**NATIONAL HOME
BUILDERS
REGISTRATION
COUNCIL**

The Chair was commissioned by the National Home Builders Registration Council to investigate and define a Business Case for the Establishment of a South African Human Settlements Training Academy. The Academy was soft launched by the Minister of Human Settlements at the National Human Settlements Conference in 2016.

**EASTERN CAPE
DEPARTMENT OF
HUMAN SETTLEMENTS**

The Chair conducted two collaborations with the Eastern Cape Department of Human Settlements, which included research of occupation assessment of selected low-cost settlements, as well as the 20-year provincial human settlements spatial master plan and project pipeline register.

With regard to the former, the Chair was commissioned to undertake occupation assessments of selected human settlements in Port Elizabeth, Lady Grey and Mount Ayliff. The study was aimed at reviewing whether current occupiers of Breaking New Ground houses were originally approved beneficiaries, and of not, who the current beneficiaries were, and how they secured occupation from the originally approved beneficiaries.

Regarding the latter, the Chair rendered support in the investigation, development and delivery of a 20-year Eastern Cape Human Settlements Spatial Master Plan and Project Pipeline Register. The project sought to profile, capture and layout the housing investment in the Eastern Cape, and overlay it on population data, migration patterns and economic activities.

**EASTERN CAPE OFFICE
OF THE PREMIER**

The Chair was commissioned by the Eastern Cape Office of the Premier for an evaluation study on the implementation of informal settlements upgrading and emergency housing.

**COUNCIL FOR
SCIENTIFIC AND
INDUSTRIAL RESEARCH**

The Council for Scientific and Industrial Research (CSIR) appointed the Chair to serve in the National Advisory Committee on the Road Map project for science, technology and Innovations and Sustainable Human

IMPACT OF COLLABORATIONS

The Chair realised several benefits from establishing these research collaborations with a variety of organisations. In terms of the monetary impacts, a total of **R1.58 million** was received for these collaborations over the review period. This signifies the importance of the Chair’s involvement with research collaborations.

Besides the monetary contributions realised from the collaborations, several other positive impacts were noticed. For instance, the **Chair handed over 8 SLP certificates to ECDHS human settlement practitioners** who had participated in the study.

Additionally, as a result of the aforementioned collaborations, the Chair realised several outcomes:

- The Chair was appointed by the Department of Science and Innovation to establish an interim Science, Technology and Innovations in Human Settlements Community of Practice for a period of six months following the EcoSUN Green Village Collaboration in 2019.
- Following the National Home Builder Registration Council (NHBRC), an MOU was established between the Chair and NHBRC to provide for cooperation on the implementation of the Human Settlements Training Academy.
- As of 2019, the ECHoHS entered into an MOU with NMU for renewing the 20-year provincial human settlement spatial master plan and project pipeline register.

4.1.4. PROVIDE CONSULTATORY SERVICES TO THE NDHS

The fourth key focus of the Chair was to provide consultatory services to the NDHS. Based on this, and according to the MOA, the Chair was expected to assist with capacity building and professionalisation endeavours of the NDHS by undertaking several projects in conjunction with service providers.

The consultatory services offered by the Chair aligned closely to and in many cases overlapped with the collaboration services discussed in Section 4.1.3, as well as the SLPs discussed in Section 4.1.2. However, in consultation with NMU representatives, it was indicated that additional consultatory services, over-and-above the collaborations and SLPs were conducted over the review period. A majority (62.5%) of these consultatory services were conducted between 2016 and 2019. However, several projects were conducted after the review period; that is from 2020 onward. These are illustrated in the Table below.

Table 4.16: Consultatory services

	2016	2017	2018	2019	2020-2021	Total
Consultatory Services	1	-	1	3	3	8

Source: Mbanga (2021)

The services presented in Table 4.16 indicate that the Chair provided five consultative services, over the review period. Of particular note are the consultative service conducted by the Chair post-review period; that is from 2020 onwards. These services are currently in progress, and are assignments for the Technology and Innovation Agency, the Council for Scientific and Industrial Research, as well as the Eastern Cape Department of Human Settlements. In terms of these, the Chair was required to allocate an average of one day per week to consultation services.

4.1.5. ESTABLISHMENT OF A COUNCIL FOR HUMAN SETTLEMENTS PROFESSIONALS

The fifth and final strategic objective that emerged from the MOA was for the establishment of a Council for Human Settlement Professionals. Through this, the Chair was expected to provide support, strategic planning, recruitment and registration services for candidates and professionals entering the Council.

Through consultation with NMU representatives, it was noted that the Council for Human Settlements Professionals had not yet been officially established, but that significant strides had been made in preparing for its establishment (Mbanga, 2021).

These strides included formally registering the Institute of Human Settlement Practitioners South Africa (IHSP-SA) – the precursor to the proposed Council – in March 2016 as a non-profit organisation. The aim of the IHSP-SA is to be a professional association of people engaged in the human settlements environment both nationally and internationally, and serve as a vehicle to drive the professionalization agenda of the sector while also serving as a regulatory body for human settlements practitioners.

The Institute has subsequently developed a constitution in 2019, launched a website and opened up opportunities for memberships. The following sections explores the various elements of the IHSP-SA including its vision and objectives, governance structures, governance and membership structure.

a) Vision of the IHSP-SA

The vision of the Institute of Human Settlement Practitioners is:



To promote and advance the human settlements profession to protect both public interest and the interest of human settlements practitioners and beneficiaries.

The Institute's mission is broken up into six elements, which include:

- Professionalism and ethics.
- Promote systems of excellence.
- Create and promote standards of practice.
- Promote continuous holistic professional development of human settlements practitioners.

- Create and promote a community of practice.
- Advocacy.

b) Aims and objectives of the IHSP-SA

The principle aim of the IHSP-SA is to facilitate the provision of professional housing management and human settlements development training education and support to all the country's citizens. In addition to this principal aim, the IHSP-SA has several additional objectives, which are listed below:

- To establish a presence across all nine provinces of South Africa and register a Constitution with the appropriate authorities;
- To recruit, socialize, educate and train practitioners in the field of human settlements development;
- To be the standard-bearer in the sector, advocating best practice and participating in debates, policy discussion and legislative processes related to human settlement development and cognate fields;
- To promote continuous learning for members by sharing global human settlements education, career guidance, new technologies, innovations, and mentoring as appropriate;
- To provide a platform for the transfer of practical and development skills essential for the development of a fit for purpose housing system across Africa;
- To support the activities of local housing groups by providing guidance and professional advice;
- Work in partnership with national and international organisations in promoting Human Settlement Management and Human Settlement Development Studies in South Africa, the sub region and further afield in line with national and international prescripts on human capacity building policies;
- Collaborate with the NGO's, the private sector and the South African government through the National Department of Human Settlements and the various human settlement entities in advancing the science and practice of human settlements and thereby advance the agenda of social and affordable human settlement needs and management in the country;
- Promote international collaboration with UN-Habitat, Shelter Afrique and other agencies in responding to the challenges of rapid urbanization, overcrowding, poor quality building construction and inadequate property maintenance systems and inadequate rural human settlements in South Africa, the sub region and on the continent; and
- Work in partnership with relevant housing authorities and organizations in selected countries to promote and facilitate the provision of professional housing education accredited.

c) Governance of the IHSP-SA

The IHSP-SA had eight founding directors who became the Institute's first board members. Three of these initial board members were women. The first Chairperson of the board was the Chair of Human Settlements Development at NMU. In addition to the board, the Institute's constitution makes provision for the establishment of provincial structures, representatives of which would sit on the board. Furthermore, the constitution empowers the board to establish the following sub-structures/chapters:

- A National Students Chapter; and
- A National Alumni Chapter.

These sub-structures/chapters have the power to elect their own National Executive Committees and establish their own constitutions provided that it aligns to the Institute’s constitution. Moreover, the Institute’s Board shall hold meetings, raise funds, open bank accounts, define corporate identities and implement its own programmes that are in concert with those of the Institute.

d) Membership of the IHSP-SA

The Institutes membership is open to a variety of domestic and international individuals, including:

- Practitioners, activists, academics, the state and private sector, NGO employees, students and investors interested in the human settlements environment;
- Individuals who can demonstrate an interest, experience and skill in the human settlements environment;
- Individuals who have received relevant training and education in the field of human settlements development or related disciplines;
- Members of other recognised Professional Bodies in South Africa who possess appropriate qualifications in the built environment;
- Members of academia and practitioners in the skills development landscape who train and retrain professionals in the human settlements sector;

Potential IHSP-SA members can elect one of three categories of membership as outlined in Table 4.17. Each of these categories has their own membership fee as set out in the Table.

Table 4.17: Fees for the IHSP-SA²³

MEMBERSHIP CATEGORY	FEES	
	DOMESTIC	INTERNATIONAL
Ordinary Member	R1 000.00	\$1 000.00
Associate Member	R500.00	-
Student Member	R200.00	-
Corporate Member ²⁴	R10 000.00	\$500.00
Institutional Member ²⁵	R5 000.00	\$2 750.00

There are several benefits associated with being a member of the IHSP-SA, which include:

- Access to knowledge hubs including webinars, policy briefs, working papers and case studies;

²³ Figures are based on fees as of 2021.

²⁴ Domestic Corporate membership for 1-25 members; International Corporate for membership for 5-9 members.

²⁵ Domestic Institution membership for 25+ members; International Institutional membership for 11+ members.

- Access to mentorship, learning and exchange programmes;
- Access to Regional and National representation and peer groups;
- Access to international affiliates.

4.2. SYNOPSIS

This Chapter reviewed the Chair's academic programme for the Bachelor of Human Settlements Degree. The review illustrated that the Chair had largely met the requirements of the MOA and internal targets in terms of student enrolments, SLP facilitation, research outputs and research collaborations, as well as consultatory services. However, at the time of this report, the Chair had not been successful in meeting establishing a Council for Human Settlement Practitioners.

In a detailed overview of the Chair's activities, it was shown that the Chair had been successful in enrolling students throughout the review period, but that they were unsuccessful in reaching the envisaged student enrolment targets. This meant that over the review period, only 181 first-year students were enrolled against a target of 270 – 89 fewer students than anticipated and only 67.0% of the target.

However, despite the low student enrolment numbers, the Chair undertook several recruitment procedures through newspapers, magazines, radio, and television, which had ultimately contributed to increasing student enrolments. Additionally, the Chair created unique course related content for the purposes of the Degree.

The review highlighted that the Chair had created and conducted numerous SLPs for various human settlement practitioners during the review period, reaching 839 SLP learners, accruing an approximate R9.0 million. Additionally, the Chair showcased 85 student and staff research outputs over the review period.

Lastly, the Chair participated in, and hosted, a 24 of national and international conferences, which contributed to establishing and securing partnerships within the human settlements space. Of particular note was the 2016 National Human Settlements Conference hosted by the Chair and which attracted 650 national and international delegates. The Chair was also involved in 12 collaborations with a variety of national and international stakeholders.

CHAPTER 5

SURVEY ANALYSIS

This Chapter provides an in-depth analysis on the results of the surveys undertaken as part of the study, focusing exclusively on students who graduated from the human settlements degree at NMU. The purpose of surveying students was to obtain feedback from past human settlement degree participants regarding their experience throughout the course, as well as whether their academic expectations were met.

The Chapter provides a quantitative analysis of the responses obtained, as well as a thematic analysis of the qualitative data. From these analyses, robust discussions are provided. A sampling methodology outlining how survey participants were contacted is also provided.

5.1. SURVEY SAMPLE, DESIGN AND APPROACH

In order to ensure effective surveying, a survey methodology was designed. The methodology of contacting past-graduates was based on a three-pronged approach: 1) initial email communication, 2) follow-up email communication, and 3) final telephonic contact.

1. First, using the contact data provided by NMU and the NDHS, all past graduates were contacted via an initial email. The purpose of the initial email was to introduce and explain the assignment to the students, as well as to provide the students with a link to access the survey. A deadline of one week to complete the survey was provided to the students.
2. Second, following the initial email, a second round of emails were distributed to the past graduates who had not yet completed the survey. This second email also included a link to the online survey, and a further deadline of one week was provided.
3. Lastly, for the past graduates who had still not completed the survey based on the first two email attempts, were contacted telephonically. The telephonic contact reminded past graduates to complete the survey, and an email with a link to the survey was distributed to the past graduates who requested the link. The past graduates who were contacted telephonically were requested to complete the survey on the same day of the contact.

After two telephone reminders and two emailed reminders, past graduates who chose not to respond within the said time allocation were recorded as non-responsive. The data analysis of this report will thus only be undertaken for responsive past graduates.

Based on the abovementioned surveying methodology, a two-week data collection window was allocated for the study where the research team endeavoured to contact all past BHSD graduates to

obtain their feedback and inputs. The past graduates were contacted from the contact list supplied by NMU and the NDHS officials. The data collection phase ran from 2 August 2021 to 18 August 2021.

Record-keeping was of utmost importance during the data collection phase of the assignment. Records of the past graduates’ name, dates and time of initial contact, and dates of secondary contact were documented. This ensured that should a past graduates choose not to participate in the study, records of such engagement were documented, and that the past graduates would receive no further contact from the research team.

The questionnaire used in the study comprised two sections and 18 questions and sought to obtain quantitative and qualitative data from the past graduates through a suite of closed-ended and open-ended questions. The questionnaire was administered via an online questionnaire application – SurveyMonkey – allowing the questionnaire to be forwarded to the past graduates via email. Prior to the development of the questionnaire, a copy of the survey was sent to the NDHS for consideration.

The online questionnaire format allowed the respondents to answer the questions in their own time and at their own pace. The research team also provided the respondents with an option to complete the questionnaire telephonically or via an online meeting format. The average time a respondent spent answering the questionnaire was 10 minutes. Table 5.1 below shows the number of graduates that were contacted during the surveying phase of the project, following the surveying methodology discussed above.

Table 5.1: Graduates contacted during surveying phase

	2018	2019	2020	TOTAL
Round 1	0	3	4	7
Round 2	0	3	6	9
Round 3	4	5	5	14
Total	4	11	15	30

The survey was distributed to all Human Settlement Degree graduates from 2018-2020. The research team attempted to contact a total of 47 graduates. A total of 30 valid responses were recorded, which showed a response rate of 64%.

5.2. DATA ANALYSIS

The survey sought to obtain students’ perceptions and experiences of their time whilst completing the Human Settlements Degree at NMU, and whether their academic expectations were met. As such, the survey asked the students a variety of quantitative and qualitative questions. The following section explores each of these areas in turn.

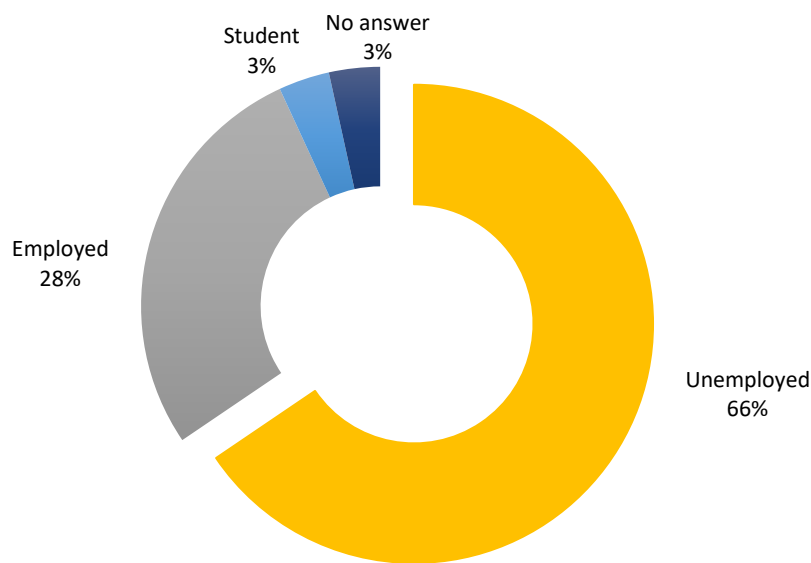
5.2.1. QUANTITATIVE ANALYSIS

The students were asked a series of quantitative questions, including their occupation and employment status, whether they would recommend the course to any prospective students, as well

as their overall rating of the course. This section discusses the quantitative and measurable findings obtained from the survey distributed to the students who graduated with a Human Settlements Degree from NMU.

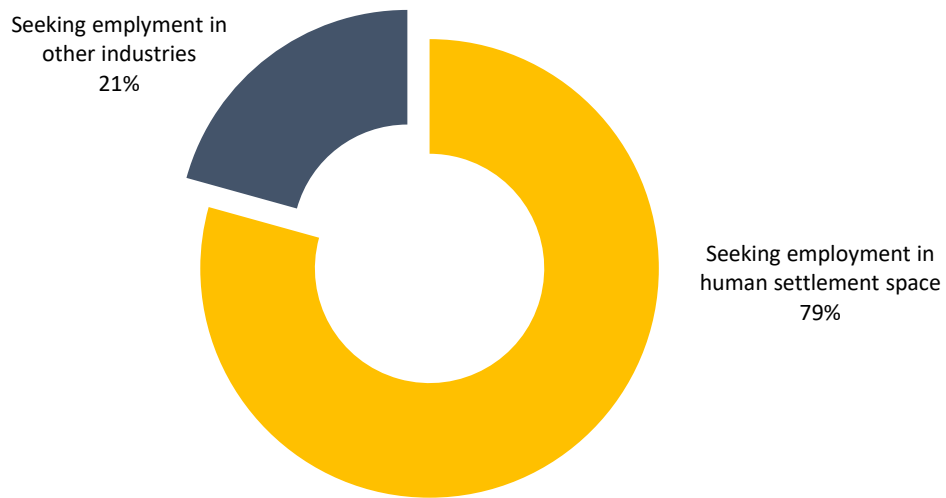
Since graduating, the students were asked about their current occupation status. The majority (66%) stated that they were currently unemployed, but were actively seeking work opportunities. A further 28% stated that they were currently employed following their graduation from NMU. The high unemployment rates of Human Settlement Degree graduates is a noteworthy finding, which will be discussed in greater detail in Section 5.2.2. Figure 5.1 below presents a breakdown of the occupation status of the students surveyed.

Figure 5.1: Occupation status



To better elaborate on the unemployment statistics, the students were asked whether they were seeking work within the human settlement space. A vast majority (79%) stated that they were currently seeking employment within the human settlements space. The remaining 21% stated that they were seeking employment in other industries non-related to human settlements.

Figure 5.2: Breakdown of occupation type



Additionally, of the 28% of students who stated that they were employed, 88% indicated that they were currently employed within the human settlements space. This shows the high retention rate of students within the human settlements environment. Several of job titles mentioned by the employed graduates included:

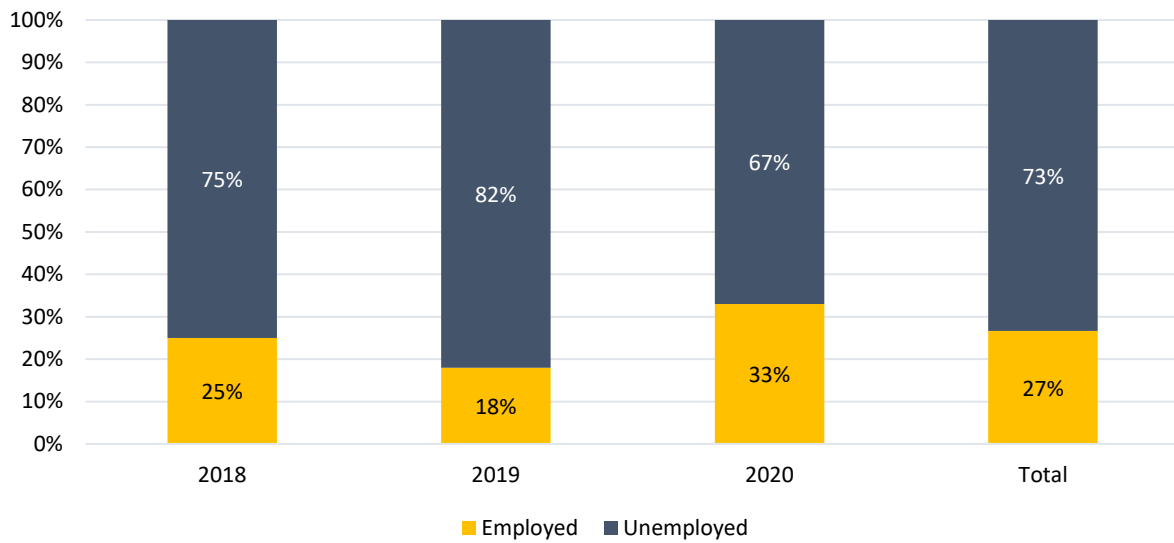
- Land Reform Intern;
- Administrator of the Institute of Human Settlement Practitioners South Africa; and
- Sectional Title Property Portfolio Manager.

In a further analysis of the employment statistics of the Human Settlements Degree graduates, it was found that the year in which students graduated did not necessarily impact their employment status. The data showed that students from all years had similar employment and unemployment statistics, which ranged from 18-33% and 67-82%, respectively.

In total, of the students who stated that they were either employed or unemployed (i.e., not considering the respondents who stated that they were a student or where no response was provided), the data showed that 73% of the students over the full review period were unemployed, while 27% were employed. Similar statistics are shown throughout the different graduation years.

However, a larger proportion of the 2019 graduates (82%) stated that they were unemployed. This is compared to the 2018 and 2020 graduates, which showed unemployment rates of 75% and 67%, respectively. These findings highlight that the year in which students graduated did not impact the employment characteristics of the students. Figure 5.3 below presents the employment statistics per year of study.

Figure 5.3: Employment status per year of study



Despite the majority of the students stating that they were seeking work within the human settlements space, the high percentage of unemployed graduated with Human Settlements Degree is noteworthy. This finding will be discussed in greater detail in Section 5.2.2.

Past graduates were also asked to rate certain aspects of the course. The rating questions were asked to determine the students’ perceptions about different aspects of the course. The data showed relatively high ratings for all aspects surveyed, which included the quality of the content taught, the teaching quality of the lecturers, as well as the overall quality of the course. All ratings were done out of a matrix of ten.

For these questions, past graduates were asked to rate the indicator on a 1-10 Likert scale with rating closer to ten (10) being more desirable. The scale used to rate the graduates’ sentiment for these respective questions was as follow: “Excellent” (Score = 9-10); “Good” (Score = 7-8); “Average” (Score = 5-6); “Poor” (Score = 3-4); “Extremely Poor” (Score = 1-2). Based on the aggregate responses, values were then converted into an average score out of ten, and then illustrated as a percentage.

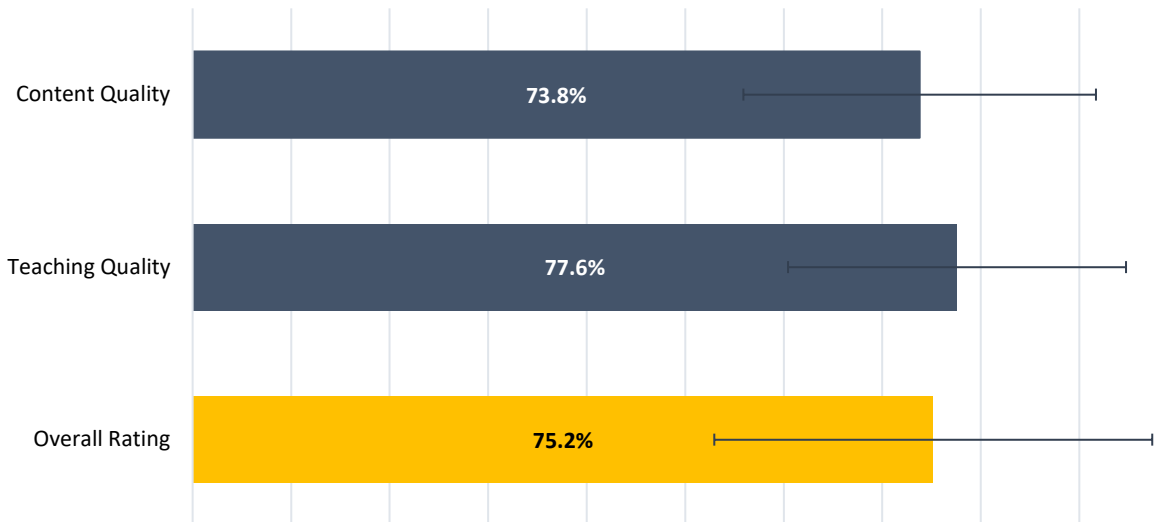
Regarding the quality of the content taught, the students rated the content quality 73.8% This highlights that the students considered the course’s content to be of a high standard, and that they were largely satisfied with the quality of the material and content provided.

Following this, the students rated the teaching quality 77.6% – the highest rating achieved out of all the aspects surveyed. This indicated that the students believed that the teaching and lecturing aspects of the course were excellent, and that the courses content and material were taught at an exceptionally high level.

Finally, the students were asked to rate the overall quality of the course. This category achieved a rating of 75.2%; the second highest rating achieved from the categories surveyed. This finding, coupled with the individual category ratings highlighted above, showcase the students’ strong positive

sentiment towards the course. This suggests, for the most part, that the student held the course in high regard, and that the overall experience within the course was relatively positive.

Figure 5.4: Perceptions of various aspects of the Degree



Despite the high ratings achieved for this course, it is important to note the high standard deviation that was recorded in the data. Error bars can depict standard deviations, which indicate the distribution of data responses around the mean value. Small standard deviation bars indicate low spread, where the data are clumped around the mean. Conversely, larger standard deviation bars indicate a larger spread around the mean, indicating that the data are more variable from the mean.

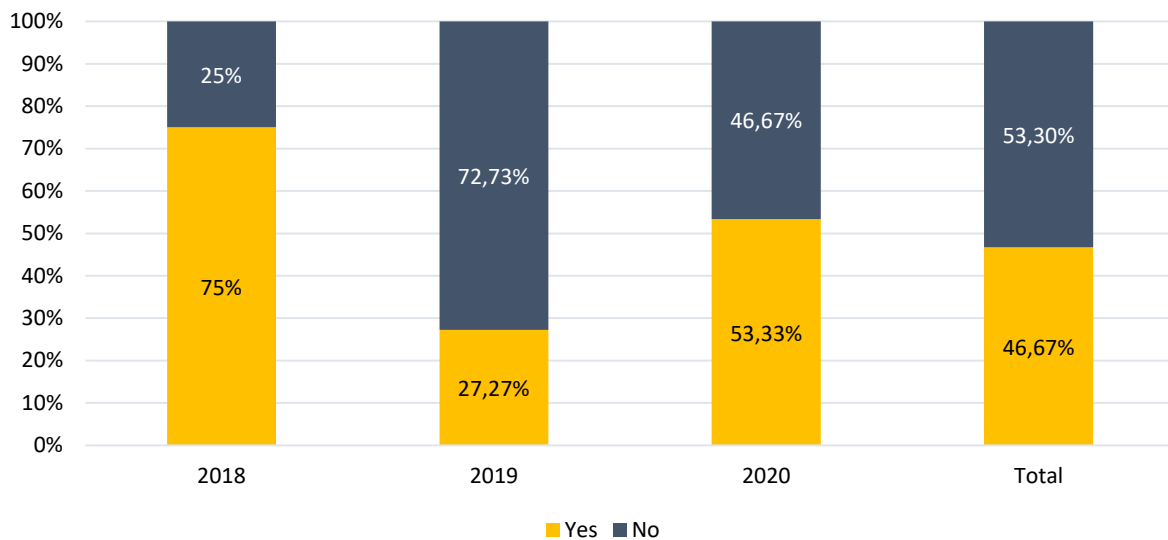
Based on this, it can be noted that the standard deviation bars depicted in Figure 5.4 indicate a relatively high variance from the mean. This means that the responses obtained from the students differed significantly, particularly regarding the courses overall rating. This means that there was a significant variation between the responses obtained, meaning that some students elected for a lower overall rating, while others elected for a higher overall rating. For instance, in an analysis of the raw data, it was observed that 13% of the graduates stated an overall rating of five or below for the overall quality of the course. In contrast, 33% of the graduates indicated a rating of between nine and ten for the overall quality of the course. This, like the high standard deviation, shows that there was a significant variance in the data.

Following the course ratings, the students were asked whether they would recommend the course to any potential or prospective students wishing to pursue studies within the human settlements space at a university. The results showed that a majority (53%) of the students would not recommend the course to any potential students

In order to better understand the breakdown of the responses received, the responses were analysed in terms of each year of study. The purpose of analysing the responses this way was to determine whether there were outstanding responses from a particular year, or if the responses were homogenous across each year of study.

It was found that most of the 2018 and 2020 graduates stated they would recommend the course to other potential students, while a significant majority of the 2019 graduates stated that they would not recommend the course to any potential students. The results obtained from the 2019 graduates differ markedly from the responses obtained from the other years of study. Figure 5.5 presents these findings.

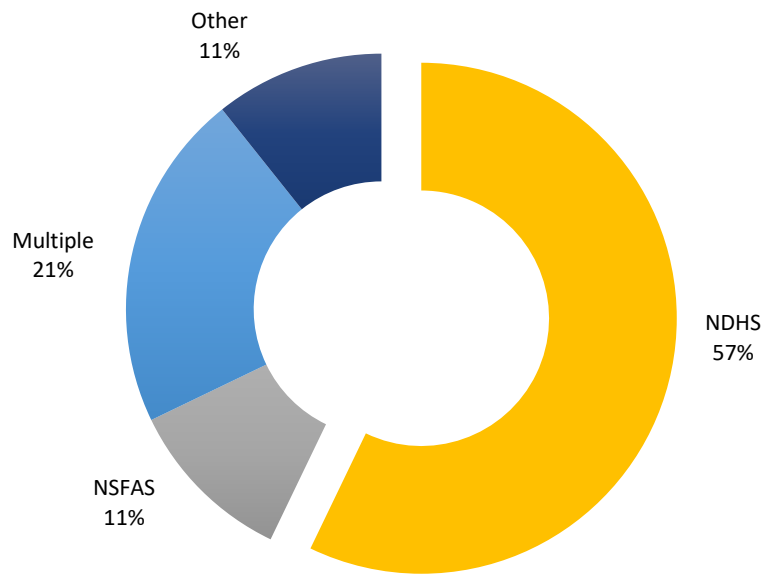
Figure 5.5: Recommend course per year of study



The students were then asked whether they had received funding from any organisation to study the Human Settlements Degree at NMU. A total of 97% students indicated that they had received some form of financial support over the course of their studies. In a breakdown of the different entities providing financial support, a majority (57%) of the students stated that they were financially supported by the NDHS, while 21% stated that they were financially supported by multiple organisations.

Within the students who stated that they were supported by multiple organisations, several alluded to the fact that they were initially supported by the NDHS in their first year of study, but that the financial support ceased from their second year of study. These students then found alternative sources of financial support. Figure 5.6 below shows the different sources of financial support.

Figure 5.6: Student funding sources



5.2.2. QUALITATIVE ANALYSIS

In the survey distributed, the students were asked to justify and elaborate on certain questions in a qualitative manner. Additionally, the students were provided the opportunity to comment about the positive and negative dimensions associated with the course. A thematic analysis was conducted to ensure an effective assessment of the results. This section provides an in-depth analysis on the qualitative data obtained from the survey.

In the qualitative section of the survey, respondents were provided with the opportunity to express their opinions without pre-determined answers, unlike in the quantitative sections of the survey. Therefore, the qualitative responses recorded were unique and based purely on the respondents' perceptions and experiences within the course.

As part of the survey, the students were asked to describe some of the positive and negative aspects of the degree. Regarding the positive aspects of the degree, 40% of the responses recorded suggested that it provided good content related on human settlements development. This suggests that the course was successful in teaching human settlements related content to the students.

Another notable response was that 27% of the students believed that the degree did not only contribute to their understanding of human settlements development, but that it also contributed to expanding their knowledge about a variety of subjects and disciplines. For instance, two respondents stated:



The course has also enhanced my knowledge of other factors which affect human settlements.

The qualification equipped me to view life in a different way, in viewing human settlements as a process of development, restoring human dignity, bringing services closer to people, and empowering disadvantaged communities.

These comments highlight the multifaceted nature of the degree, where students were exposed to a variety of different subjects and disciplines that related to human settlements development, the built environment, and land-use management.

Building on this, another 13% of the students believed that a successful aspect of the degree was that it was both multidisciplinary and diverse. The students believed that the multidisciplinary nature of the degree allowed them to think of new and innovative ways of solving human settlements related issues within South Africa. The comments below highlight these issues:

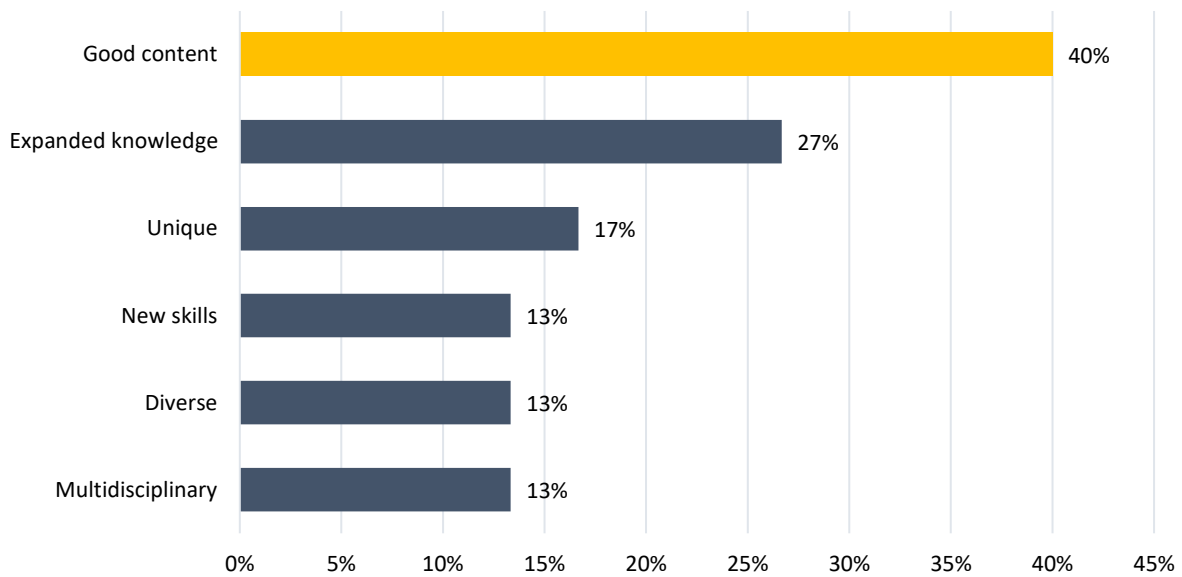


It encourages students to think of new and innovative ways of solving and contributing solutions to the issues of Human Settlements in South Africa.

The course content is multidisciplinary. It allows you, as a student to understand all aspects of Human Settlement Development; which I believe is very crucial for any practitioner working in the Human Settlement Development space.

Another 17% believed that the degree was unique, in that the knowledge gained within it was unlike the knowledge that they might have gained in any other degree. Another 13% believed that one of the successful aspects of the degree was that it assisted them in gaining new skills, particularly related to research and studying techniques. Figure 5.7 below presents the breakdown of the coded qualitative responses received by the students.

Figure 5.7: Positive aspects of the course²⁶



In addition to the positive aspects of the degree, the students were asked to highlight the negative aspects, if any, associated with the degree. The qualitative data for this question was analysed in the same manner as the previous question.

The responses recorded for this question were that despite 13% of the students stating that a positive aspect of the degree was its diverse nature, 40% believed that the degree’s diversity was a negative aspect. The students stated that due to the diverse nature of the degree, several modules were not taught in great detail, which, they thought, had inhibited their learning outcomes. For instance, several students stated:



[The course is] too diverse. It does not go into depth with some of the modules. Most where just scratched the surface.

In the course being multifaceted, I feel like there needs to be specialization within the course.

²⁶ The qualitative responses that were recorded were coded based on the type of response received. Therefore, in some cases, multiple codes were obtained from single responses, which brought the total number of qualitative responses above the 30 surveys conducted.

These comments highlight that, although the degree was initially structured to be multidisciplinary and diverse, many of the students believed that it was *too* diverse, and that they struggled to learn specific human settlements related content.

Another negative aspect of the degree, identified by the students, was the limited work exposure associated with the degree. This accounted for 37% of all the responses received. Building on this point, the students believed that although the degree had well-structured theoretical components, they believed that there was little exposure to what the real-world human settlement space was like outside the academic environment, which, in some instances, had resulted in students struggling to find work opportunities after graduation. Several students commented the following:



[A] drawback is that most of the graduates did not get to experience the work space or environment before the time of their graduation. There was no work-learning experience.

We have no experiential learning programme to give us exposure to the real work and field of human settlement.

Past graduates also believed that the degree had limited practical work attached to it. This was evident by the fact that 27% of the students believed that the course was too focused on theoretical learning and lacked practical work. For instance, several students noted:



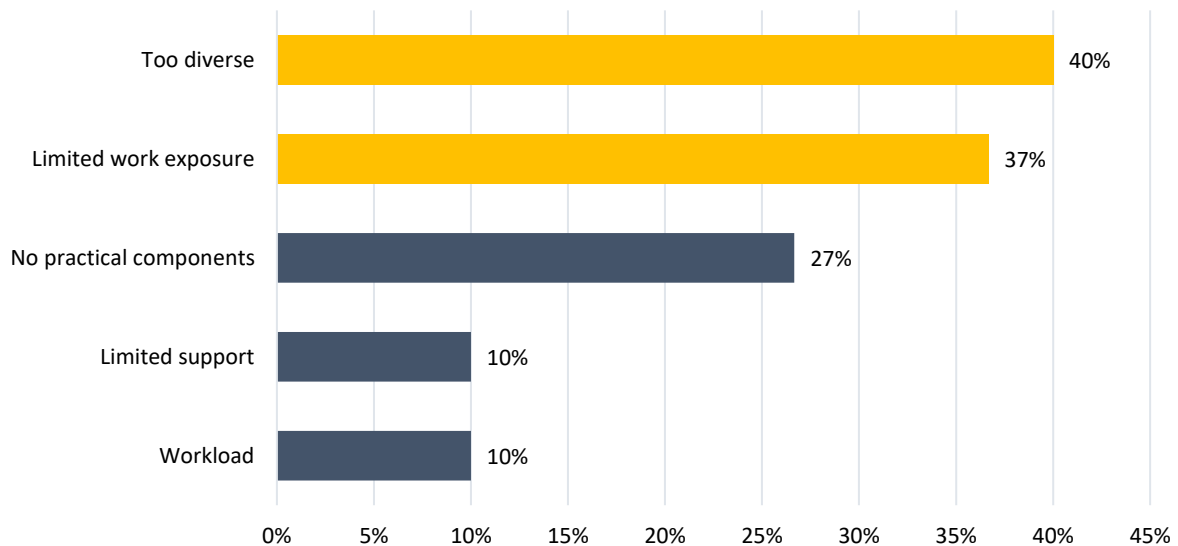
The most negative thing with this qualification is that it doesn't have practical work.

[The course teaches] just theory and is not well established practically. This makes it difficult to move into workplaces as it limits your [opportunities].

A further 10% of the students believed that there was limited support provided by the NMU Human Settlements Department, particularly during their fourth year of study when students were completing their research treatise. The students suggested that due to the fact that there were limited staff within the Chair, the staff were overloaded with supervising responsibilities, and therefore could only offer limited support to students. This concern links to the fact that 7% of the students believed that a negative aspect of the course was that many of the lecturers were outsourced, and that there was limited continuity within the Chair in terms of the lecturers used.

Another 10% believed that there was degree workload, particularly in the first year of study, was too much. One student believed that completing over ten modules in first year was a heavy burden. Figure 5.8 below presents the negative aspects of the course, as believed by the students.

Figure 5.8: Negative aspects of the course



The students were further asked to highlight which areas, if any, the degree could improve. The results showed that an overwhelming majority (73%) of the students suggested that there should be a mandatory work-learning programme implemented within the degree to allow the students to gain exposure within the human settlements development space.

Several students recommended that internships, apprenticeships, and the placing of students in human settlements positions should be a mandatory requirement in the final year of study. Through this, the students believed that entry into the job market would be more effective, as the students would have had exposure to the real-world human settlements space outside of the academic environment.

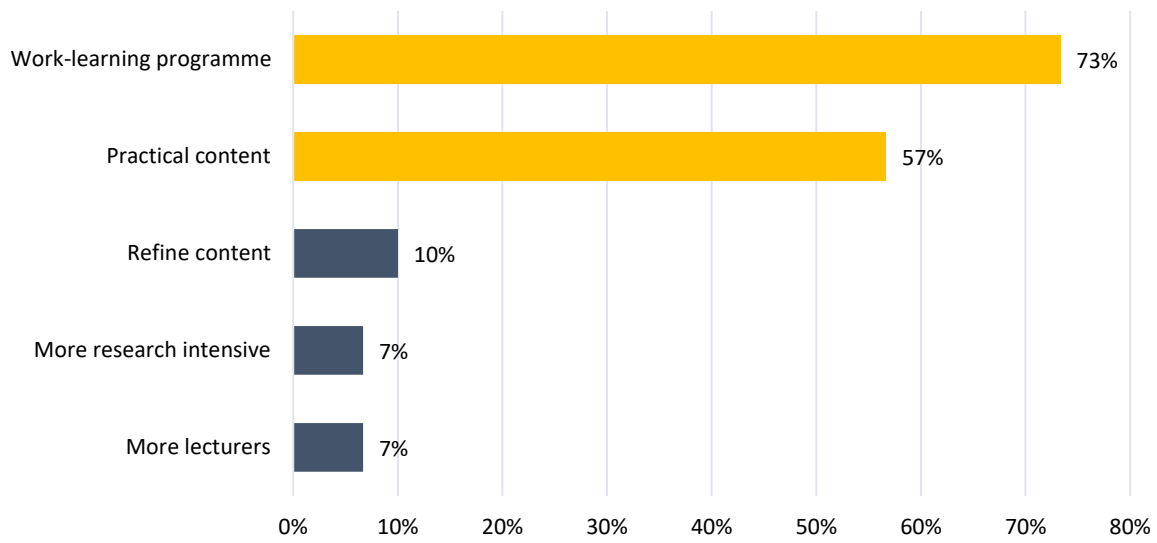
Approximately 57% of the students also believed that there should be more practical-work related content introduced within the degree. Many students believed that the degree is too focused on theory, where practical content is not implemented.

The remaining areas of improvement included:

- Refining course content (10%);
- Introducing more intensive research content, particularly before the fourth year of study (7%); and
- Adding more lecturers to assist with supervising and assistance (7%).

Figure 5.9 below presents the responses for any improvements the degree could make, as believed by the students.

Figure 5.9: Areas of improvement



In order to summarise the responses obtained above, a thematic analysis was conducted. Table 5.2 below presents a thematic analysis summary of the responses recorded above, where positive and negative dimensions relating to each theme are presented.

Table 5.2: Thematic analysis of responses

THEME	SUB-THEME	POSITIVE DIMENSIONS	NEGATIVE DIMENSIONS
Course content	Four-year qualification	The four-year qualification allows students to graduate with an NQF Level 8, which is the equivalent to an Honours Degree. This, therefore, allows graduates to be more competitive in the job market.	Honours treatise should be specific and allow students to choose their preferred specialisation.
	Multidisciplinary	Provides high-level exposure to a variety of professions and industries. Enables students to understand the different dynamics and roles played by professionals within the built environment. Valuable exposure to legislation and policy.	Diverse nature made the course material too vague. Did not go into great depth and detail with some modules. Scale down the 'broadness'. Too much focus on public administration rather than the built environment.
	Enhancement of knowledge	Able to understand the requirements of the built environment profession in greater detail. Encouraged students to think of innovative ways of solving South Africa's human settlement issues.	Too many subjects taught in the first year.
Exposure	Practical course content	Large focus on theoretical content.	Little to no practical work in the course. The content is focused on human settlements theory. While theoretical content is crucial, practical content is invaluable. Graduates leave with no practical exposure; therefore, students often have to complete an additional qualification to be recognised.
	Work placement		The qualification is too vague; Human Settlements is often not acknowledged in the workplace when compared to Construction Management or Architecture. The qualification is not marketed to potential employers; students are left with a qualification that is not recognised by many employers.
Course administration	Lecturers	Course content was delivered at a high standard.	The course outsourced a majority of its lecturers, which impacted the relationships between students and staff. Lecturers are strained; they are unable to provide students with necessary attention and guidance.

5.3. SYNOPSIS

This Chapter highlighted the results obtained from the surveys conducted with past Human Settlement Degree graduates. The purpose of conducting this research was to obtain the students' opinions and perceptions of the course, and whether their academic expectations were met. In total 63% of past graduates completed the survey.

The results showed that a significant proportion of the graduates rated the course highly, where the overall degree was rated at 75%, while the teaching quality was rated at 77%. Moreover, 47% of the students stated that they would recommend the degree to other prospective students. The students stated that positive aspects of the degree included good course content, as well as the potential for expanding their knowledge within the human settlements space.

Despite the positive ratings of the degree, the results highlighted that a significant majority of the graduates were unemployed following their graduation. When questioned which aspects of the degree could be improved, a large proportion of the students suggested that work-learning exposure could be increased, where students could be exposed to potential employers and employment options after graduation.

CHAPTER 6

CHAIR'S IMPACT ANALYSIS

This Chapter seeks to quantify the economic impact of the Chair and contrasts the impact against the cost of its operations. The Chapter begins with a description on how economic impacts are typically measured, and how different types of economic impacts are defined and distinguished. An explanation of the model that is used to determine the economic impact of the Chair is then discussed, which includes a discussion on the economic impact indicators measured.

The Chapter then goes on to describe the economic impact of the Chair by considering the capital and operational expenditures associated with the Chair. Final conclusions are drawn from this impact assessment and then discussed.

6.1. UNDERSTANDING AND MEASURING ECONOMIC IMPACTS

An economic impact is defined as any external change in the activity of a local economy that has either a positive or negative effect on the output of that area. The analysis of economic impacts rests on the assumption that a given economy is in equilibrium. This economy then receives some form of exogenous shock (for example, the implementation of a particular government programme) which leads to a period of economic adjustment before the economy returns to a new, stable equilibrium. Economic impact analysis focuses on the period between the initial shock and the economy reaching its new long-run equilibrium. Economic impact analysis, therefore, aims to estimate the changes which occur during the adjustment process.

In short, economic impact analysis seeks to measure the effect on the level of economic activity of a given area as a result of some form of external intervention in the economy.

6.1.1. TYPES OF ECONOMIC IMPACTS

An economic impact assessment (EIA) considers the following three types of economic impact:

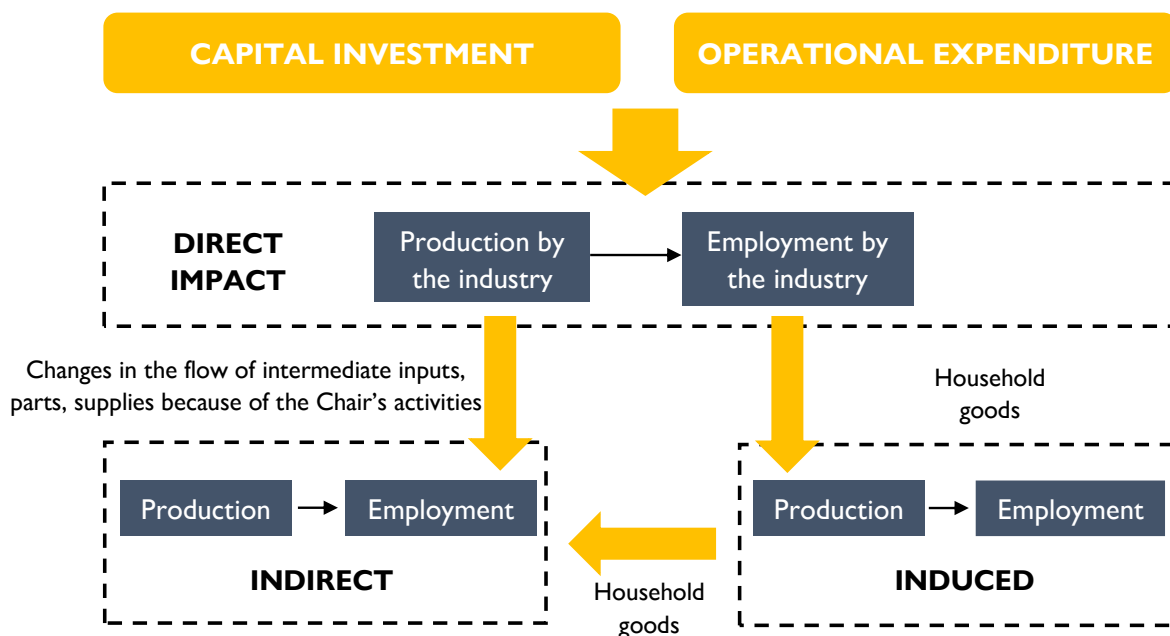
- 1) **Direct impacts:** These occur when a business or government programme creates jobs and procures the goods and services that they need to develop and operate. Direct impacts result in an increase in job creation, production, business sales and household income.
- 2) **Indirect impacts:** These arise when suppliers of goods and services to a new business or government programme can access larger markets because of the new business/programme activities and thus have the potential to expand.

- 3) **Induced impacts:** These impacts represent further shifts in spending on goods and services as a consequence of the change in payroll of workers of directly and indirectly affected businesses. This leads to further business growth throughout the economy.

6.1.2. TEMPORAL NATURE OF IMPACTS

All projects and interventions have two basic types of investment– capital expenditure (CAPEX) and operational expenditure (OPEX) – each of which are measured at a specific stage in the project/intervention lifecycle. The relationship between the capital and operational expenditure of a particular intervention and the direct, indirect, and induced impacts of this expenditure are illustrated in Figure 6.1.

Figure 6.1: Impact of CAPEX and OPEX



An initial capital investment/expenditure is usually defined as a once-off payment spent by a business or organisation on acquiring or maintaining fixed assets, such as buildings and equipment. Therefore, the economic impacts created by such capital investments are once-off impacts and will only occur for the duration of the development phase of the project/intervention. These economic impacts are thus not sustainable as they cease once the development phase is completed.

Operational economic impacts, unlike capital expenditure economic impacts, are sustainable and are likely to occur over the full duration of the project. These impacts are therefore calculated as an annual impact, based on the operational expenditure of the Chair for a given year.

6.1.3. MODELS USED FOR ECONOMIC IMPACT ANALYSES

Three main types of statistical models are used to measure economic impacts:

- The Input-Output Analysis;
- Social Accounting Matrix (SAM)-Leontief; and
- Computable General Equilibrium (CGE) models.

All are based on the general equilibrium framework and require data which captures the circular flow of funds through an economy. Input-output tables and social accounting matrices (SAMs) provide such data. The actual models consist of systems of equations based on economic theory. These equations are then used to generate multipliers that enable the estimation of economic impacts.

All three models were considered for this study; however, due to the limitations of the Input-Output and CGE models, the SAM-Leontief model was applied. For instance, the emphasis of an input-output table is on inter-industry transactions, and thus the full circular flow of transactions in an economy are not captured. Moreover, the CGE Model was not selected as it requires considerable input data which is often difficult to obtain. In addition to this, it has not yet been possible to determine whether the data generated by CGE models are quantitatively accurate.

A social accounting matrix (SAM) is defined as an economy-wide database that contains information about the flow of resources associated with all transactions that take place between economic agents in an economy during a given period. A SAM is an extension of an Input-Output table, which shows more detailed information on economic agents and factors of production. The SAM illustrates in a single square matrix all the interactions between production, income, consumption, and capital accumulation in an economy. It is; therefore, a logical arrangement of statistical information concerning income and expenditure flows in an economy and provides a 'snapshot' of the economy at a given point in time.

The SAM-Leontief model uses social accounting matrices as its underlying database. Coefficients are taken from the SAM and are used to calculate the open (households included) and closed (households excluded) Leontief inverses which are then multiplied by the shock to obtain the direct, indirect, and induced impacts on production. These changes in production are then multiplied by direct multipliers to obtain specific impacts.

6.1.4. INDICATORS OF ECONOMIC IMPACTS

Through the use of the SAM-Leontief model, it is possible to quantify the economic impact of the Chair on the following four indicators:

1. **Production/Business sales:** Production is defined as the process in which labour and assets are used to transform inputs of goods and services into outputs of other goods and services (i.e., business sales). The economic impact assessment will seek to quantify the value of all inter- and intra-sectoral business sales generated in the economy because of the Chair's activities.
2. **Gross Domestic Product (GDP):** Gross Domestic Product refers to the market value of all final goods and services produced within a country in a given period. This measure reflects the sum

of production, wage income and corporate profits generated in South Africa as a result of the Chair's activities.

3. **Employment:** Employment reflects the number of additional jobs created in the economy as a result of the Chair's activities. For this metric, a job is defined as one person employed for one full year. These employment values, however, have two major limitations: (1) they do not necessarily reflect the quality of employment opportunities, and (2) they cannot be easily compared to the public costs of attracting those jobs (through subsidies, tax breaks or public investments).
4. **Income:** The income generated by the Chair's activities refers to the total value of salaries and wages earned by the labour force employed through the Chair, as well as the salary and wage income generated by suppliers of goods and services to the Chair.

6.2. DATA NOTES AND ASSUMPTIONS

In undertaking the economic impact modelling for the Chair, the following points should be noted:

- The income and expenditure figures were obtained from the Chair and relate to cost centre EC40 and EC3151, covering the period 2013 to 2019.
- Financial values include only actual income and expenditure outlay figures for the respective financials, and therefore exclude carry-over figures.
- The income and expenditure figures presented in Table 3.8 were used in the modelling exercise.
- Only domestic operational expenditure was considered.
- Only those costs directly attributable to the Chair were considered. Therefore, it excludes cost items attributable to other NMU cost centres that may be indirectly attributable to the Chair.
- The economic impact assessment results only reflect the operational and capital expenditures of the Chair and thus do not include other benefits that may accrue as a result of the Chair's activities. Where possible, these figures are quantified separately
- The 2014 national SAM-Leontief model developed by Stats South Africa was used for this study, with relevant figures updated to 2021 values.

The following specific assumptions are applicable for the economic impact modelling for the Chair:

- The expenditure figures presented for the Chair reflect the real situation accurately enough for the purpose of the impact assessment.
- Production activities in the economy are grouped in homogeneous sectors.
- The mutual interdependence of sectors is expressed in meaningful input factors.
- Each sector's inputs are a function of the specific sector's production, comparative advantage, and location.
- The production by different sectors is equal to the sum of the production of separate sectors.
- No significant structural changes in the economy occurred over the review period.

6.3. ECONOMIC IMPACT ANALYSIS RESULTS²⁷

The economic impact analysis considered capital expenditure (CAPEX) and operational expenditure (OPEX). The results of each differ according to the inputs within each category. The remainder of this section discusses the results obtained from both the CAPEX and OPEX impacts.

6.3.1. CAPEX IMPACT

Regarding the CAPEX impact, the Chair invested in a total of R203 781 in capital assets over the review period. This investment was chiefly comprised of computer investment and furniture expenditure. The total impact on domestic production from the Chair was R817 689). This total impact was comprised of direct impacts of R203 781, with a further R299 871 in indirect production generated in other industries that supply goods and services to the Chair. The induced impact on the economy was approximately R314 037.

The positive impact on production due to the capital expenditure undertaken by the Chair contributed to a total positive estimated impact on Gross Domestic Product (GDP) of R281 801. Direct and indirect impacts contributed to R71 441 and R100 672, respectively, together with an additional R109 688 of induced impacts.

In total, the capital expenditure by the Chair assisted in creating one direct employment opportunity, with a further one indirect and one induced employment opportunities. Therefore, as a result of the capital expenditure three employment opportunities were created. The total household income generated by these employment opportunities was R212 823, which consisted of R53 541 of direct impact, and an indirect and induced impact of R76 939 and R82 342, respectively.

Table 6.1: Economic Impact of Chair's CAPEX (R, millions)

	DIRECT	INDIRECT	INDUCED	TOTAL
Production	R203 781	R299 871	R314 037	R817 689
GDP	R71 441	R100 672	R109 688	R281 801
Employment	1	1	1	3
Income	R53 541	R76 939	R82 342	R212 823

Source: Urban-Econ calculations (2021)

6.3.2. OPEX IMPACT

A total impact of R50.7 million on domestic production was realised as a result of the operational expenditure incurred by the Chair over the review period. This consisted of a direct impact of R34.0 million, and an indirect impact of R7.2 million in economic sectors supplying inputs to the Chair. An induced impact of R9.5 million was also realised in other sectors of the economy.

²⁷ The values in Table 6.1 might not necessarily add up to total value due to rounding.

The increase in production as a result of the Chair’s operational expenditure also had a direct, indirect, and induced impact on GDP. The R4.0 million of direct impact on GDP, in turn, created an indirect and induced impact on the GDP of South Africa of R4.0 million and R5.3 million, respectively. The cumulative impact of the Chair’s operational expenditure on national GDP was R13.2 million over the full review period.

The operational activities of the Chair also contributed to employment creation, generating approximately 69 job opportunities as a result of the direct, indirect, and induced effects. A total contribution of R6.6 million was made to household income as a result of the employment opportunities, with a direct impact of R2.0 million, as well as an indirect and induced impact of R2.0 million and R2.6 million, respectively.

Table 6.2: Economic Impact of Chair's OPEX (R, millions)

	DIRECT	INDIRECT	INDUCED	TOTAL
Production	R34.0	R7.2	R9.5	R50.7
GDP	R4.0	R4.0	R5.3	R13.2
Employment	21	20	28	69
Income	R2.0	R2.0	R2.6	R6.6

Source: Urban-Econ calculations (2021)

Based on the capital and operational expenditure impacts illustrated in Table 6.1 and Table 6.2, the **total impact of the funding provided** by the NDHS to the Chair of Human Settlements Development over the review period helped to increase national **production** by an estimated **R51.4 million**, a portion of which is likely accrued in part of the Eastern Cape. The funding, and the Chair’s subsequent activities also helped to create an estimated **72 employment opportunities** throughout the national economy from the direct, indirect and induced effects. These employment opportunities resulted in **household incomes increasing** by an estimated **R6.8 million** – or 26.8% of the total funding provided by the NDHS.

6.4. ADDITIONAL BENEFITS OF THE CHAIR

As outlined in Chapter 4, the Chair has generated several additional benefits over the review period that are not effectively captured in the economic impact assessment presented above. This is because the economic impact assessment only considers actual expenditure figures, rather than the benefits that may have arisen as a result of this expenditure.

Some of these benefits over the full review period that would not have been captured include:

- Enrolling 181 1st year students into the degree programme, of which 86 (47.5%) were women and all but two were historically disadvantaged individuals.
- Contributing to 42 students successfully graduating with a Bachelor of Human Settlements Development Degree.
- Developing 9 new and unique human settlement specific modules.
- Provided a total of 425 790 hours of notational learning to students.

- Undertaking 28 short learning programmes benefitting 839 participants.
- Participating and/or hosting 24 national and international seminars, symposia, and workshops.
- Contributing to the production of 85 research outputs.
- Establishing 12 research collaborations with national and international stakeholders.
- Encouraging 24 organisations into providing either bursaries (8) or achievement awards (14) for Bachelor of Human Settlements Development students.
- A total of 17 students were solely funded by the NDHS throughout their studies, while 6 were funded by the NDHS, in addition to additional organisations.

For some of these activities, a monetary value can be readily determined; for others, a monetary value can be estimated, while for some it is not possible to determine any monetary value. This section seeks to estimate monetary values for these benefits based on the following assumptions:

1. Short learning programmes and collaborations

The monetary value for these activities was based on the income figures for the Chair's EC3151 cost centre as well as the additional income identified in the Chair's annual reports to the NDHS.

2. Student enrolments

The monetary value for the number of students enrolled in the course was calculated by multiplying the number of students who graduated from the course by the average tuition cost per student for four years of study.

Based on the above assumption Table 6.3 summarises the tangible benefits described above. The Chair **generated an approximate R18.3 million in additional benefits** from a SLPs, collaborations with other organisations as well as from student tuitions. In a breakdown of each category, the results show that the Chair received approximately R7.8 million (42.5% of the total additional benefits) from short learning programmes and approximately R9.0 million (48.9% of the total additional benefits) from student enrolment tuitions. The Chair also received R1.5 million (8.6% of the total additional benefits) from collaborations with other organisations over the review period.

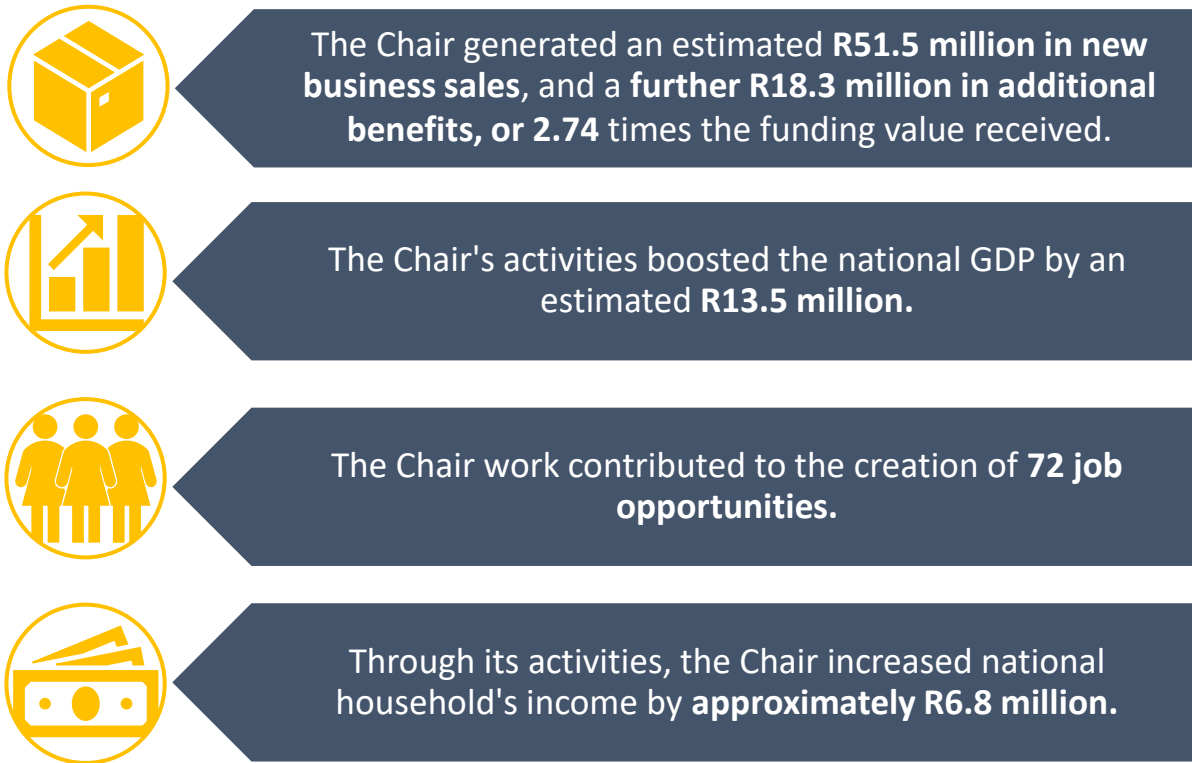
Table 6.3: Additional benefits received by the Chair (R, thousands)

	2014	2015	2016	2017	2018	2019	TOTAL
SLPs	-	-	R2 150.9	-	R5 119.9	R534.1	R7 804.9
Student tuition	R370.7	R902.6	R1 770.3	R1 608.4	R2 726.5	R1 621.8	R9 000.3
Collaborations	-	-	R249.9	-	R880.0	R450.0	R1 580.0
Total	R370.7	R902.6	R4 171.1	R1 608.4	R8 726.4	R2 605.9	R18 385.2

Source: Urban-Econ calculations (2021)

Excluding the economic impact assessment results, the monetary value of the benefits presented in Table 6.3 alone represent almost **72.4%** of the total value of the funding received from the NDHS over the review period. This suggests that the Chair has been highly beneficial to the broader South African economy.

Figure 6.2: Summary of the total impact of the Chair



6.5. SYNOPSIS

This Chapter sought to quantify the economic impact of the Chair, as well as identify the associated benefits that have arisen over the review period. It was shown that the Chair has had a positive impact on South Africa's economy and production, GDP, employment and household income. In addition to this economic impact, a further **R18.3 million in additional benefits** accrued to the South African economy as part of the Chairs' operations. Based on this, the overall benefits accrued from the Chair over the review period have significantly benefitted the South African economy.

Based on this, the overall benefits accrued from the Chair of Human Settlements Development over the review period have exceeded the funding from the NDHS by 2.74 times. This means that for **every R1.00 in funding from the NDHS, the Chair has generated R2.74 in benefit** to the broader South African economy, highlighting the positive impact that the Chair has had over the review period.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

The National Department of Human Settlements and the Chair of Human Settlements Development signed an MOA for a five-year period, commencing in 2012 and expiring in 2017. At the conclusion of the five-year period, an agreement was reached between the parties to extend the MOA for a further two years, in line with the provisions set out in the MOA. The rationale for the extension was to ensure the continuation and longevity of the Chair of Human Settlements Development. This addendum to the MOA extended the Chair's existence by a further two years to December 2019.

Based on this, this report provided an economic impact assessment on the Chair's performance over the review period, where key performance areas and indicators were assessed. The remainder of this Chapter discusses the key findings from the report, as well as the suggested recommendations.

7.1. KEY FINDINGS

7.1.1. LITERATURE REVIEW

This **Literature Review** presented an overview of the human settlements environment in South Africa, as well as a discussion on the higher education environment in the country, with a particular focus on skills development and capacity building in the human settlements arena. The literature review highlighted that the construction sector is a significant contributor to the South African economy, contributing R89.2 billion to the country's GDP in 2020, as well as contributing to just over 800 000 jobs in 2020.

The literature review also covered an analysis on the higher learning environment in South Africa. The analysis found that 61.5% of South Africa's public universities have an Engineering Faculty, of which only 37.5% have a Built Environment Faculty. Moreover, in 2020, the 26 public universities and universities of technology only had a cumulative total of 16 152 new students enrolled in engineering programmes, which accounts for just 8.0% of the total new university entrants. The review also found that there are currently six universities in South Africa that are currently offering, or are in the process of offering, courses aligned to the human settlement environment.

7.1.2. PROGRAMME REVIEW

This **Programme Review** provided an overview of the impact evaluation for the study, with a particular focus about the human and financial resourcing structure and the organogram of the human settlements degree at NMU. The Chapter highlighted the three major objectives the Chair sought to address, which are shown below:

- To respond effectively to the challenges of slow pace in the delivery of sustainable human settlements;
- Address the housing demand; and
- Pursue an ongoing research agenda aimed and yielding evidence-based solutions to daunting questions that confront the sector.

The programme review highlighted the five focus areas of the Chair per the MOA, as well as the Chair’s envisaged beneficiaries and programme design. In addition to this, the Chair’s future plans, human resourcing structure and financial resourcing were considered. This led to the finding that the Chair had a positive leverage ratio with the Chair able to **attract R0.31 in additional funding for every R1.00 of NDHS grant funding provided**. This has resulted in the Chair receiving an additional R7.8 million in income from SLPs, on top of the R25.3 million in grant funding from the NDHS.

7.1.3. ASSESSMENT OF CHAIR’S PERFORMANCE

This Chapter assessed the Chair’s performance against its targets since its inception. The assessment was conducted for each of the five focus areas highlighted in the MOA namely:

- a) Creation & Implementation of a Bachelor’s Degree in Human Settlements Development;
- b) Creation of Short Learning Programmes;
- c) Advisory and technical support services;
- d) Lead trans-disciplinary research and innovations aimed at human settlements; and
- e) Establishment of a South African Council for Human Settlement Practitioners.

Key performance outcomes from these focus areas are discussed below:

- Regarding the first focus area, the Chair successfully created a unique degree for human settlements development, where nine modules were specifically developed for the degree. These modules were not offered in any other course at NMU but were rather specifically developed for the Human Settlement Development Degree. The Chair also participated in marketing and recruitment strategies in an attempt to enrol the required number of students into the course. The Chair was largely successful in enrolling students, but high student drop-out rates impacted the student enrolment statistics. Moreover, **42 students graduated from the Degree**, highlighting the Chair’s success of not only establishing a Human Settlements Development Degree, but also ensuring that these students graduated from the programme. However, it should be noted that when aggregated, out of all the students who were eligible to graduate over the review period (i.e., students who enrolled between 2014 and 2016), only 56.0% of these students successfully graduated.
- Regarding the second focus area, the Chair was required to create and lead SLPs aimed at human settlement development. Over the review period, the Chair **conducted 28 SLPs to over 839 participants, generating R9.0 million in second-stream revenue**.
- The third focus area required the Chair to undertake research regarding human settlement development. In total, the Chair **generated 85 research outputs, attended, and hosted a**

combination of 24 conferences, including the National Human Settlement Conference, and **collaborated with 12 unique organisations**, generating R1.58 million in second stream revenue.

- The fourth focus area in the MOA required the Chair to provide consultative service to the NDHS. While several of the SLPs formed a part of these activities, the Chair conducted an additional eight consultative services for the Chair over-and-above the SLPs, where three were conducted after the review period.
- Finally, the Chair was required to establish a Council for Human Settlement Practitioners. While it was found that the Council has not yet been established, the Chair did establish the Institute of Human Settlement Practitioners of South Africa. It is understood that the Institute of Human Settlement Practitioners of South Africa is a precursor to the Council for Human Settlement Practitioners, where, although the names differ, the functions, objectives and deliverables of the Institute remain similar to the envisaged functions of the Council.

7.1.4. SURVEY ANALYSIS

Following the assessment of the programme's performance, past-graduates were surveyed in order to obtain their opinions regarding their experiences whilst completing the degree, and whether their academic expectations were met. The results from the **Survey Analysis** highlighted that the degree had positively impacted their personal and academic development, and that their academic expectations had largely been met. For instance, one student stated:



The course content is multidisciplinary. It allows you, as a student to understand all aspects of Human Settlement Development; which I believe is very crucial for any practitioner working in the Human Settlement Development space.

In a more detailed analysis of the Degree, the past-graduates **rated the overall quality of the course at 75%**, while the teaching quality was rated at 77%. Moreover, 47% of the students stated that they would recommend the degree to other prospective students.

However, despite the positive feedback provided by the past-graduates, recommendations of emphasising practical elements associated with the degree were made by the students surveyed. A total of 57% of the past-graduates suggested that an area of improvement for the Degree was to increase the practical content associated with the Degree. For instance, one student stated:



[The course teaches] just theory and is not well established practically. This makes it difficult to move into workplaces as it limits your [opportunities].

7.1.5. CHAIR'S IMPACT ANALYSIS

This **Impact Analysis** Chapter provided an economic impact analysis of the Chair's activities. The Chapter also sought to quantify any other benefits that may have arisen due to the Chair's operations. The Chapter's findings show the positive impact the Chair had on the South African economy, where its activities contributed to an estimated R817 689 in new business sales and R50.7 million in new business sales from CAPEX and OPEX expenditure respectively.

Table 7.1: Total Economic Impact of the Chair's CAPEX and OPEX

	CAPEX TOTAL	OPEX TOTAL
Production	R817 689	R50 670 121
GDP	R281 801	R13 199 804
Employment	3	69
Income	R212 823	R6 589 185

Furthermore, the Chair's activities boosted national GDP by an estimated R281 801 due to capital expenditure, and an additional R13.2 million as a result of operational expenditure. It contributed to the creation of approximately three job opportunities because of capital expenditure and 69 job opportunities because of operational expenditure. Moreover, the Chair accrued over R18.3 million in additional benefits through SLPs, student tuitions and external collaborations.

The overall benefits accrued from the Chair of Human Settlements Development over the review period have exceeded the funding from the NDHS by 2.74 times. This means that for **every R1.00 in funding from the NDHS, the Chair has generated R2.74 in benefit** to the broader South African economy, highlighting the positive impact that the Chair has had over the review period.

It can be concluded that the Chair exhibited a positive impact on the country's GDP, employment opportunities as well as household income, while achieving the objectives highlighted in the MOA by creating a Human Settlements Development Degree, conducting research outputs and collaborations with other entities, creating SLPs as well as providing a consultative service to the NDHS.

7.2. SUGGESTED RECOMMENDATIONS

Several recommendations were drawn from the findings obtained from this project. It was observed that the Chair had a significant positive impact on the South African economy at large, positively

impacting the country’s GDP and employment metrics. Moreover, the Chair was largely successful in meeting the five focus area objectives set out in the MOA between NMU and the NDHS.

Despite the Chair’s relative success in meeting the flagship objectives, several recommendations were drawn. These are discussed in the following sections below.

7.2.1. INCREASING FOOTPRINT OF THE DEGREE

The overarching goal of the Chair is to increase the sphere of influence of human settlement development within both education and research institutions as well as the built-environment industry more broadly. While the Chair has successfully established a human settlements orientated qualification, this knowledge creation is confined to degree participants. This means that human settlements related knowledge creation is limited to a single degree at NMU.

To expand the sphere of influence of human settlements development in the broader built-environment industry it is recommended that human settlement related content and modules be included in different degrees offered within the Faculty of Engineering, the Built Environment and Technology at NMU.

Including human settlement-related modules in different degrees and qualifications will expand the degree programme’s sphere of influence, thereby achieving the objective of the MOA of expanding the knowledge base of human settlements development at NMU.

A high-level analysis of possible qualifications and degrees that are offered by the Faculty of Engineering, the Built Environment and Technology at NMU and that would be suitable to include human settlement related content are provided in Table 7.2.

Table 7.2: Integration of human settlements development into other courses

PROPOSED COURSES	COURSE SUITABILITY FOR HUMAN SETTLEMENT-RELATED CONTENT
Diploma (Architectural Technology)	High
Advanced Diploma (Architectural Technology)	High
BEngTech (Civil Engineering)	High
Bachelor of Architectural Studies	High
BSc (Construction Studies)	High
Diploma (Building)	Medium
BSc (Construction Economics)	Medium
Advanced Diploma (Construction Management)	Medium
Advanced Diploma (Quantity Surveying)	Low

The courses were ranked in terms of their suitability to integrate human settlement development related modules into the course. Five courses were identified to have a high potential for integrating human settlement development modules, which included one diploma course, one advanced diploma course, and three bachelor’s degree courses.

Based on the findings from Table 7.2, it is recommended that all degrees and diplomas within the Faculty of Engineering, the Built Environment and Technology at NMU should consider introducing, at a minimum, the basic introductory modules to human settlement development. This would include the following modules:

- HSM101 Basic Principles and Theory of HSD and Management
- HSM102 Theory of Land Use, Planning and Management

Additionally, advanced diplomas should consider adding advanced elements of human settlement development knowledge into the syllabus. Certain advanced diplomas where this could be implemented include:

- Diploma (Architectural Technology);
- Advanced Diploma (Architectural Technology);
- Diploma (Building);
- Advanced Diploma (Construction Management); and
- Advanced Diploma (Quantity Surveying).

Lastly, other degrees within the Faculty of Engineering, the Built Environment and Technology at NMU should consider adding additional human settlement development related modules, such as

- HSM201 Land Use Management and Environment
- HSM202 Communities and Human Resources
- HSM203 Housing Finance and Administration
- HSM301 Development Management Theory
- HSM302 Human Settlement Policies and Implementation
- HSM401 Sustainable Human Settlement and Urban Management
- HSM402 Economic Development and Environmental Impact Management
- IDM401 IDP Theory, Policy and Practice

However, introducing additional modules to existing degrees will have cost, credit and duration implications and will have to be considered carefully before pursuing.

7.2.2. REVISE FUNCTIONS OF THE CHAIR

The review highlighted that the MOA requires a significant commitment from the Chair. In addition to lecturing, supervising students and conducting academic work and administration attached hereto, the Chair is required to undertake research, attract funding, attend and host conferences and pursue collaborations with other organisations.

The review also found that the Chair is under-staffed, as highlighted in the organogram in Chapter 3, which inhibits their ability to meet the abovementioned commitments.

Due to the significant commitments required of the Chair, compounded by the small staff compliment, many of the responsibilities required from the MOA of the Chair inhibits their ability to implement them all effectively and to the highest quality.

Therefore, it is recommended that the roles and functions of the Chair be revisited in order to ensure that they can effectively achieve the objectives set out in future MOAs. In reviewing these roles, two alternative approaches can be adopted going forward:

1. Chair remains hosted by NMU

Under this approach the Chair continues to operate in its current format within the Faculty of Engineering, the Built Environment and Technology at NMU, but with a sole focus on offering the Human Settlements Degree and SLPs.

This would see the development of the broader human settlement environment and collaboration functions discontinued. This will allow the Chair to solely focus on achieving the objective of human settlement knowledge creation through the offering of a degree and SLPs to prospective human settlement students.

2. Chair is transferred out of NMU

Under this approach the Chair's roles will be split between the Institute of Human Settlement Practitioners of South Africa and NMU. The Institute would be responsible for conducting research, attending and hosting conferences and entering into partnerships and collaborations with other organisations, while NMU continue to offer the Human Settlements Degree and SPLs using its own capacity. The Chair will, however, continue to work in close collaboration with NMU, but its primary role will not be in offering an academic programme, but rather to further promote the development of the human settlements environment in the Eastern Cape, as well as in South Africa.

Transferring the responsibilities of running the academic programme to NMU will also allow the Chair to focus on implementing human settlements projects without the additional burden of running a human settlements academic programme.

7.2.3. SET SPECIFIC METRICS/TARGETS IN FUTURE

When examining the MOA, few if any of the focus areas had specific targets which could be measured against. For instance, although the MOA stated that the Chair should collaborate with other organisations on human settlement related issues, the number of collaborations per year, or over the review period, were not specified. Similarly, specific metrics involving the number of research outputs the Chair should provide or the number of conferences the Chair should attend were also not specified. The absence of such measurable targets means that the performance of the Chair cannot be readily or easily tracked.

Providing specific metrics for future focus areas of the Chair would contribute to a better understanding of what the Chair should achieve and make the measurement of such achievements easier. Therefore, it is recommended that future MOAs provide specific metrics for the Chair.

Chapter 4 sets out specific metrics for each of the focus areas, from which potential targets could be derived. Based on the findings uncovered in this project, it is recommended that two collaborations be met every year, while the Chair should attend or host at least four conferences per annum. On the research front, it is recommended that the Chair complete a minimum 14 research outputs each year. Moreover, three marketing and student enrolment strategies should be pursued per year.

Providing specific metrics and measurable targets for the Chair will promote accountability and assist the Chair in meeting the objectives of future MOAs.

7.2.4. PLACE GREATER FOCUS ON PRACTICAL ELEMENTS IN DEGREE

Findings from the stakeholder engagement process presented in Chapter 5 highlighted the limited practical work experience offered in the Degree. Many past graduates indicated that this had limited their opportunities in the human settlements space outside of university, resulting in them struggling to find employment opportunities following their graduation.

Based on this, it is recommended that the Chair consider restructuring several modules to incorporate more practical elements into the Human Settlement Development Degree. From the data gathered from the graduate stakeholder engagements, many graduates believe that an increased focus on practical human settlement development elements would enhance opportunities in the workplace after graduation.

The following models lend themselves to such practical work experience:

- Construction Management;
- House Construction and Maintenance;
- Property Development and Management; and
- House Design and Services.

7.2.5. IMPROVE ENROLMENT STRATEGIES

It is recommended that the Chair continue to pursue strategies to enrol students in the Human Settlements Degree at NMU. In the assessment review, it was found that although the Chair had pursued multiple marketing and enrolment strategies during the review period, they occurred in an irregular manner. It is therefore recommended that more frequent marketing strategies be pursued to ensure that the course maintains sustainable student enrolment figures post-MOA.

Marketing strategies such as open days, newspaper articles and exposure through institutes and human settlement bodies are recommended.

It was also noted that no assessment has been undertaken to establish which of the marketing strategies adopted by the Chair is the most effective at attracting potential students. It is therefore also recommended that periodic surveys be undertaken with first year students to establish how they found out about the degree, and use this information to inform future marketing strategy choices.

7.2.6. ENSURE FINANCIAL VIABILITY

Through consultation with representatives of the Chair, as well as an analysis of financial reports and documentation, issues of financial viability and accountability came to the forefront. It was observed that the Chair faced funding constraints as well as several financial-related issues including

- A clear weakness for periodic financial reporting;
- Lack of internal audit controls;
- Poor reporting against expected outcomes of the MOA; and
- Weaknesses in cashflow management by the Chair.

Based on these limitations, it is recommended that the NDHS provide future financial support until such a time as the degree programme reaches sustainable student numbers. At the same time, however, the Chair should actively expand its fundraising and resource mobilisation strategies through partnerships between the Chair and other entities, to generate additional revenue. In this respect, a minimum leverage ratio of 0.50 should be targeted.

In addition, it is recommended that NMU establish a unique cost centre for the Chair, where funds paid to the Chair are directly accessible by the Chair. Furthermore, it is recommended that the Chair place greater emphasis on quarterly and annual financial reporting, possibly accessing support from NMU's School of Accounting.

7.3. WAY FORWARD

The report highlighted that the Chair exhibited a positive economic impact on the South African economy. Moreover, the Chair largely met the requirements of the MOA between the NDHS and NMU, where the Chair exhibited success in meeting the five flagship focus areas.

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