UNOPS Haiti Operations Centre

16/6 - *Réhabilitation de 16 Quartiers et Retour Volontaire des Familles de 6 Camps Associés*

Inception Report

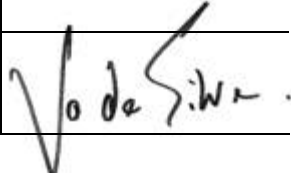218638-00

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Executive Summary

The 16/6 project is an initiative of the Government of Haiti (GoH) that aims to provide an integrated response to the need for closing six camps created in Port-au-Prince after the earthquake in January 2010. The 16/6 project is being implemented in partnership with UNOPS, the International Organisation for Migration (IOM), the United Nations Development Programme (UNDP) and the International Labour Organisation (ILO).

16/6 is an ambitious project, only achievable by combining the strengths of the various partners. Our suggestions, intending to provide further guidance on ways to move the project forward, are summarised in the following pages.

The following check-list is a summary of actions that we recommend to take the project further. They are discussed in more detail in the body of the report.

Project Strategy (Section 4)

☐ De-link camp closure and neighbourhood rehabilitation strategies. Adopt a portfolio approach to neighbourhood rehabilitation to maximise the opportunities in each different typology of neighbourhood.

☐ Focus on neighbourhood (community) level interventions rather than plot-by-plot (household) level interventions to maximise project impact.

☐ Review alternative methods of providing assistance and ensure that methods which are most effective and have the greatest impact are chosen.

☐ Define an appropriate and achievable level of household and community engagement/empowerment in each element of the 16/6 project. Clarify if the 16/6 programme intends to adopt an owner/community-driven approach and what this would mean in terms of project implementation.

☐ Develop an effective long-term community engagement process, incorporating appropriate and effective mechanisms of communication and a complaints mechanism.

☐ Further develop the stakeholder mapping and analysis for the 16/6 project already started by UN-Habitat.

☐ Strengthen project governance to achieve outcomes. Develop effective mechanisms for working in partnership and decision-making within the 16/6 project; perhaps by making greater use of the steering committee.

☐ Develop greater clarity on the intended recovery and reconstruction outcomes of the 16/6 project and individual project components to assist project stakeholders in: understanding the role of their organisation, their activities in achieving the overall project outcomes, and to enable them to make better-informed decisions as to how to achieve them.

Housing (Section 5)

☐ Undertake high-level zoning of neighbourhoods to identify 'red', 'yellow' and 'green' zones as soon as possible to enable strategies for the assistance of households in yellow and red zones to be further developed. Consider the definitions of these zones before carrying out analysis.

- Develop and implement a methodology for household- and community-level assessment of damage, hazards and infrastructure. Use the community process to verify the damage assessment and inform the technical risk and infrastructure assessments.

- Clarify who is eligible to receive housing assistance and develop specific strategies for targeting and inclusion of vulnerable groups.

- Maximise opportunities within the project to raise awareness of the importance of safe construction, provide information on appropriate building design, construction techniques and methods of accessing financial and technical support.

- Develop a strategy to encourage owners of green houses on green sites to retrofit their houses and/or support the return of displaced families to the neighbourhoods (for example through the provision of information, technical assistance and access to micro-credit).

Neighbourhoods (Section 6)

- Undertake a neighbourhood-level technical infrastructure assessment to inform infrastructure investment options. This will help both the community and the technical teams to understand the existing provision of infrastructure as well as to evaluate the neighbourhood's needs.

- Ensure that the socio-economic survey targets all families within the 16/6 neighbourhoods, not just households identified in the damage assessment. Develop indicators of vulnerability for households within the 16/6 neighbourhood based on the output of this survey and consultation with other agencies already working in the 16/6 neighbourhoods.

- During the community participation process, the community should be encouraged to prioritise investment and define/validate a suitable location for critical infrastructure.

- Based on the combination of infrastructure assumptions and zoning, UNOPS should prepare a menu of potential interventions that are specific for each neighbourhood or group of neighbourhood. The objective of this will be the consultation with the community.

Other Recommendations

- Clarify which existing government policies and regulations impact on the 16/6 project, the likely impact of the 16/6 project on reconstruction policy during its implementation and potential long-term impacts on land tenure, financial mechanisms and housing policy (Section 3).Develop a strategy for capturing learning from neighbourhood rehabilitation and permanent reconstruction projects already undertaken in Port-au-Prince, building on this within the 16/6 project, and sharing learning from the 16/6 programme with the Haitian Government and other project stakeholders (Section 3).

1   Introduction

Scope

This report has been prepared by Arup International Development (Arup ID). This document is intended to capture key observations and recommendations arising from this mission in a format that can be shared with other key project stakeholders. Also the document is intended to highlight key areas where Arup ID can provide further assistance.

As the first step in Arup ID's provision of strategic and technical assistance an inception mission was completed by Samantha Stratton-Short, Victoria Maynard and Braulio Eduardo Morera from 24 October to 4 November 2011. The purpose of the mission was to:

- understand the context, project, and actors;

- provide immediate feedback on urgent and/or strategic issues;

- build relationships within UNOPS and the wider project team; and

- inform suggestions as to how Arup ID can best support UNOPS in the 16/6 project.

The mission included meetings with key stakeholders and visits to camps, neighbourhoods and existing UNOPS programmes. Several project documents were also reviewed. Findings from the mission have been further refined through consultation with relevant staff in Arup with experiences of working in similar countries and projects. More detailed information on the basis of preparation for this review is included in Appendix A.

Report Structure

The report reflects the mission as follows:-

- our understanding of the project, context, actors (**section 2**)

- to make recommendations for clarifying the strategy of the project (**section 3**), responding to the key findings and drawing on Arup's own experience and best practice

- defining an approach to the housing level component of the project (**section 4**)

- building an approach to the numerous and diverse neighbourhoods (**section 5**)

- providing suggestions for quick wins (**section 7**)

- outlining the potential next steps for our engagement (**section 8**).

The analyses to illustrate and substantiate our findings are included in Appendices A to H.

2   The Project

2.1   Context

The earthquake on 12 January 2010 destroyed or seriously damaged approximately 200,000 houses and left 1.5 million people in need of shelter assistance. It is currently estimated that 634,000 people are still living in camps, unable or unwilling to return to their previous residence. Nearly two years after the earthquake the focus of international assistance has shifted from humanitarian response to permanent reconstruction. The new government, which has been in place for only a few months, is keen to use the 16/6 project to make a step change in the post-disaster reconstruction efforts.

2.2   16/6

The 16/6 project is an initiative of the Government of Haiti (GoH) that aims to provide an integrated response to the need for closing six camps created in Port-au-Prince after the earthquake in January 2010. The main assumption underpinning this project is that the closure of the selected camps will be achieved by addressing the urgent physical and social problems of the 16 neighbourhoods from which the 8,000 displaced people come. The link between the 6 camps and 16 neighbourhoods is based on the neighbourhood (*quartier)* of origin identified by the displaced families.

Low income neighbourhoods in Port-au-Prince have developed over several decades with minimum or non-existent planning guidance and enforcement. Seismic standards were not considered given that there had not been an earthquake in living memory, resulting in partial or heavy damage for 52% of the housing stock across the 16 *quartiers*. The scope of the programme is focused on the implementation of projects that are deliverable in a 24-month time period and within an agreed budget of US$98 million. In this context UNOPS's responsibilities within 16/6 relate to housing and neighbourhood infrastructure.

2.3   Champs de Mars

Although it was not originally part of the scope, the closure of the Champs de Mars camp has been recently identified as a key objective, and a "quick win" of the project. Addressing the problems associated with this camp is a high priority for the GoH as this occupies one of the main public spaces in Port-au-Prince. Thus, providing housing solutions for the 5,000 families currently in Champs de Mars will be an important sign of recovery for the country. The GoH's ambition is that Champs de Mars camp is dismantled and families are relocated prior to the next carnival (February 2012). The displaced population living in Champs de Mars, however, come from many different areas within the city, which emphasises the need to increase the hosing stock across the Port-au-Prince metropolitan area.

This budget for this initiative is an additional $20 million. However it targets nearly as many families as the 16/6 project and has a more ambitious timeline, aiming to be significantly completed within only a few months.

2.4   Objectives and Outcomes

According to the 16/6 project brief[1] - contained in the *Document de Programme*, revision 28.07.2011 - the expected objectives and outcomes of the project are as follows:

Objectives	Specific outcomes	Owner[2]
1. The project will secure that the displaced camps associated with the targeted neighbourhoods have found a lasting housing solution.	• 5,000 displaced families will achieve a viable sustainable housing solution with support of community services • The six camps are progressively closed and the public spaces are rehabilitated	• All agencies • IOM
2. The project proposes the return of the displaced families to the 16 districts of origin, a process that will be facilitated by the reconstruction of quality housing.	• Debris removal to allow the physical rehabilitation of the neighbourhoods • A construction workforce is trained and whose work complies with government standards • 944 yellow damaged houses are repaired according to the norms and standards of the Government • A solution to red houses is progressively developed (gradual core housing)	• UNDP • ILO • UNOPS • UNOPS
3. The project will promote the rehabilitation of 16 districts targeted based on the priorities of its residents.	• Community platforms supporting the identification of housing solutions and the return process in neighbourhoods • An agreed regeneration plan • Increased access to services identified as priorities by local residents resulting in reduced vulnerability of districts. Improved access to employment and income generation	• UNOPS • UN-Habitat / UNOPS • UNOPS • ILO
4. The project will support future reconstruction in Port-au-Prince by applying the model of the 16 neighbourhoods.	• Implementation of a Knowledge Management System for a wide scope of the program, including its replicability and sustainability • Development of a Monitoring and Evaluation System	• tbc • tbc

Table 1: Expected objectives and outcomes of 16/6

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[1] It is assumed that the objectives for the Champs de Mars initiative are the same but the outcomes should be updated to reflect the additional work.
[2] Owners are based on our current understanding.

2.5   The Key Stakeholders

Project stakeholders

The 16/6 project is led by the GoH with implementation and coordination assistance from four UN agencies; UNOPS, IOM, UNDP, ILO.

Each agency is responsible for specific components of the 16/6 project:

- UNOPS – Repair and reconstruction of yellow and red houses and construction of community infrastructure in the neighbourhoods
- IOM – Management and closure of the camps through the provision of cash grants for rental assistance. Facilitation of the first three community meetings in each neighbourhood.
- UNDP – Establishment of Community Platforms in each of the neighbourhoods.
- ILO – Training and livelihoods support within the neighbourhoods for construction labourers/supervisors, small businesses, women, and young people.

A Project Management Unit (PMU) has been established to support efficient coordination and implementation of the 16/6 project. It is chaired by Clement Belizaire (GoH) and includes representatives from the four UN agencies. Nigel Fisher, in his role as Resident Coordinator and Humanitarian Coordinator, along with representatives of the GoH, local government and other stakeholders, form a Steering Committee for the 16/6 project; responsible for overall supervision and strategic direction.

The United Nations Human Settlements Programme (UN-Habitat) played a significant role in the strategic definition of the 16/6 project. UN-Habitat has parallel funding for activities which contribute to the 16/6 project; including neighbourhood level planning and community enumeration. UNICEF may also play a role in the 16/6 project but this has not yet been defined.

Several national government ministries are also involved in the project[3]:

- the Ministry of Interior and Local Authorities, through its leadership of local authorities, will provide technical and administrative support to local government through the ATL (local technical agencies).
- the Ministry of Public Works (MTPTC) will be responsible for standards and regulation regarding the repair and reconstruction of yellow and red houses, construction of infrastructure and risk assessment. It will provide technical support to the communal resource centres (CRC) to increase local government capacity to supervise construction and repair programmes and support the implementation of standards developed by the MTPTC.

Local government representatives (the CASEC and ASEC) play a crucial role in local level coordination and implementation of the project, and will be represented in the Community Platforms.

Communities

Community Platforms will be established to provide a mechanism for community-led decision making and two-way communication between the community and the GoH/UN agencies. The Community Platform will include a wide range of community representatives and could comprise around 100 people.

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[3] It is anticipated that the Ministries of Finance and Social Affairs will also play a key role in the programme, but this has not yet been defined.

A smaller number of people (around 12) will be elected by the Community Platform to serve on the Community Platform Management Committee. This committee will represent the larger membership of the Community Platform and will also include a representative of the Mayor, the CASEC, women's groups and youth groups.

Other stakeholders

Emergency and recovery operations have been underway in Haiti for almost two years and several organisations are already working in the neighbourhoods identified as part of the 16/6 project. A preliminary identification of these stakeholders has been undertaken by UN-Habitat (Appendix B) but this requires further verification prior to working in the target neighbourhoods.

As the 16/6 programme is intended to act as a precedent for future return and reconstruction programmes in Port-au-Prince it is crucial that it draws on best practice from similar programmes already underway. Programmes and agencies targeting integrated urban development, housing repair, and reconstruction have been identified in Appendix C.

3   Observations

During our mission and through examination of project documents, we have highlighted several issues for the project that are likely to affect its success. They fall into the following categories:

1. **Strategy:** issues affecting how the project is defined, particularly in terms of objectives and outcomes.

2. **Technical:** issues affecting the operational components for UNOPS, focussed on physical interventions.

3. **Community Participation:** as the community is a key stakeholder in the success of the project, these are issues involving how to achieve effective participation of the community.

4. **Governance:** issues addressing two groups of critical stakeholders who are directly involved in the implementation of the project.

5. **Policy:** issues reflecting how the project will need certain policy decisions to be effective, and will also lead the crafting of new policy for reconstruction and development beyond the project boundaries.

These issues provide a context for the approaches proposed in sections 4, 5, and 6.

3.1   Strategy

Objectives

Humanitarian response can be understood as having three phases: relief, recovery and reconstruction. These phases are not rigidly defined but often merge into one another; for example, recovery and reconstruction can start at the same time as the relief effort immediately following a disaster. The focus of the relief phase is alleviation of suffering and the prevention of further loss of life. In contrast, recovery focuses on the reconstruction of critical infrastructure and enabling people to resume their normal lives by returning to work or school. The reconstruction phase includes the building of permanent housing and infrastructure, and the development of sustainable livelihoods.

On the 16/6 project the nature of activities taken to close the camps will differ from those required to address the problems of neighbourhood renewal. The strategies required usually vary between the project agency acting as a provider of assistance, or being an enabler of change. Closing the camps requires quick strategic actions such as direct assistance for the displaced families to relocate in undamaged or repaired houses. On the other hand, neighbourhood renewal will demand a multi-stakeholder and multidisciplinary approach to guarantee the success of wider objectives of the reconstruction.

Great clarity on the intended outcome of each component of the 16/6 project – whether to have immediate impact on recovery or maximise the impact of permanent reconstruction – would assist the 16/6 project team in prioritising and sequencing their activities, and working more successfully together.

Timing

Timing is a key issue in the 16/6 project. There is pressure both from communities and the new government to begin implementation quickly and create visible impact within communities. On the other hand the activities of several actors within the project are inter-dependent – some activities cannot be started until others are completed, while others should not be started as they may exclude opportunities in later stages.

Optimisation of resources

There are limited funds compared to the scale of the post-disaster needs, within the project and in the wider affected community. It is therefore important always to consider which interventions create the greatest impact for the largest number of targeted affected people. Direct physical interventions are necessary, particularly when they are intended to serve a wider population, and require technical expertise and contractor services. For other interventions, however, especially where families and individuals only need support to do the work themselves, limited resources can be better applied through provision of assistance such as legal and technical advice, information and access to credit.

Equity

The communities being served have a natural capacity for resilience that should not be suppressed with the anticipation or provision of outside aid. Parts of the community will be more vulnerable and have fewer resources and capacity for rebuilding following the disaster. It is important that limited resources are targeted at the most vulnerable members of the community. This may require that those without means get more direct assistance, while those with more means are provided support to access further resources.

3.2 Technical

Data

The context for this project is complex. Each neighbourhood faces numerous and different hazards, experienced different levels of impact from the earthquake, and contains different demographics and constraints and opportunities. This information is critical for informing the strategies to be implemented in each area.

There is some existing information on these factors but very little overall for the neighbourhoods in comparison with that held on the camps. The information is constantly changing, and several organisations are running ongoing data collection work currently in these areas.

While it will not be possible to have all the information desired to make certain decisions, there are already several forms of input being collected. A table in Appendix B lists the information that will be available from these instruments, and upon which intervention decisions they are likely to have an impact.

Technical assessments

To date, an assessment of building damage has been completed by the MTPTC/UNOPS and a neighbourhood level risk assessment will be implemented in the next 2-3 months.

One of the most significant information inputs is that of the risk mapping process for the neighbourhoods. A policy has already been set out that no investment will be made in 'red zones', areas deemed too unsafe for critical infrastructure and residential dwellings. The actual definition of these zones and the distinction between yellow and green zones is critical to the project. Many of the selected neighbourhoods may be considered mostly unsafe by professional

standards, or too expensive and disruptive to mitigate. For those who have been residing in these areas and surviving, this external classification is unlikely to be seen as helpful and may add to further displacement of families.

Informal reconstruction

Whilst there may not be much reconstruction for which international organisations can take credit for completed or underway to date, there is evidence in all the communities of reconstruction underway by the communities already. This is a testament to the natural resilience of the communities. However, due to the prevailing emphasis on relief and recovery and the lack of relevant regulations, what is being rebuilt is not of a suitable standard to alleviate the chances of another disaster on the same scale as the recent earthquake.

3.3   Community Participation

The extent to which the community needs to be informed or to drive the decision-making on the project is currently a challenge for the project. There are different views held by the four partners about how much involvement is required and when. Generally there appears to be a feeling that enumeration and community-led planning are too time-consuming and unnecessary. There is also a fear that getting the balance between the community, local government and technical advisors is very complicated and, again, time-consuming.

It is important to recognise that the communities are no longer in the critical stages of relief or recovery and that it is more important to empower them to be able to rebuild, long after the attention and funding have disappeared, than to implement quick physical changes on the ground that may or may not actually have the most important impacts for the affected people. This is not to suggest that supporting the communities with these changes is not important, but it must be recognised that the outcomes of creating communities to which displaced families wish to return, and which are better for all involved, are complex and primarily understood by the communities themselves.

There should also be recognition that local grassroots organisations as well as international non-governmental organisations (NGOs) are already present and active in these communities. Where possible, these organisations should be engaged with and supported rather than overlooked as multiple processes are run in parallel. Thus one of the first inputs needed from the communities is information about who has been active there and what they have been doing. This will help avoid confusion, fatigue and cynicism from the community as well.

There is an argument for UN-Habitat to be brought into the project (bringing the funding the organisation already has for enumeration and community building). It has experience and expertise from other disasters in the area of urban planning and successful reconstruction, such as the award winning work recently completed in Pakistan. The organisation also helped shape the project definition for 16/6 and advocated for critical elements of the approach.

However, it would be important to ensure that UN-Habitat were equally committed to the project outcomes and would be willing to work within the constraints of the programme, including optimising its current enumeration and planning processes to meet the demands. UN-Habitat was wary of turning part of the process of neighbourhood reconstruction into a project which could make it difficult to act as partners in the interdependent project environment.

3.4　Governance

The project has four partners comprising four United Nations agencies under the leadership of the Haitian government. Whilst the roles look clear in the project documentation, in conversation with the partners a lack of clarity emerges, especially around the interaction with the communities and local governments. The roles of UNOPS, UN-Habitat (not currently a partner), UNDP and IOM in community relations overlaps in the initial stages and then is left undefined as the project matures.

Part of the challenge lies with the interdependency of the partners needed to achieve the project objectives. Individually, the partners are each committed to doing their part, and delivery on their outputs. But to realise the ambitions of the project requires a collaborative, not just a cooperative approach. It is likely that the project director (the government representative) assumes that because each partner is a UN agency that there is a predisposition for working together, and may not yet have identified the challenge at hand.

3.5　Policy

There are several policy issues that need to be in place in order to proceed, or that the project should lead. Perhaps the most critical issue is land tenure. There is a process in place for community-level agreement on property entitlement but this has not been formalised. Increasing the density in some neighbourhoods will require clarity on multiple tenancies of a building on the same piece of land.

There needs to be greater distinction between what is currently defined in policy and regulation, what is being tested and defined by the implementation of 16/6. In order to avoid confusion, particularly by those acting on other projects, it is important to put in place policies that can be applied by the wider reconstruction programme. For example, how much people should be given for repairing their houses, what are the minimum standards for repair or rebuilding, and what is expected of those currently located on red zones.

4 Recommendations for Project Strategy

Based on our observations during this mission we propose the following recommendations to address the challenges that affect the project strategy.

4.1 Adopt a portfolio approach

Rather than focussing on the possible relationship between the camps and the neighbourhoods a portfolio approach to the neighbourhoods is recommended. This approach, which would view the neighbourhoods collectively at the project level rather than individually, would address the unique needs of each neighbourhood and maximise the opportunities to create project-level outcomes.

In terms of the camps, the first camps of Place St. Pierre and Place Boyer are already being treated this way. The IDPs have been given support to find rental accommodation for a year. The camps have been successfully emptied and yet there are few people who have returned to the neighbourhoods from which they claim to have originated before the earthquake.

For the neighbourhoods, the focus should be on creating a pull to attract IDPs as well as further investment. This will require a range of potential strategies depending on the gaps and opportunities presented by each of the neighbourhoods. Because some neighbourhoods will risk reducing their capacity when a full risk analysis is prepared, it is important that other neighbourhoods can increase their density as much as possible, even beyond the numbers of IDPs that claim to have originated there.

This approach would also have implications on the way the project is managed. It would enable a more centralised and consistent method to the processes, while being able to give priority to the communities and the needs of individual neighbourhoods.

4.2 Strengthen project governance to achieve outcomes

Many of the recommendations, such as adopting a portfolio approach and starting with the neighbourhood level, stress the outcomes for the project above the outputs. This reinforcement of outcomes puts greater stress on collaboration between the partners by increasing the interdependence between the processes and the role each partner plays.

First this will require a clarification of the intended outcomes, and of how the different agency workstreams contribute to this, and how they are interdependent. This should then be reinforced with a commitment from the partners to work together.

In order to improve confidence about working together the processes should be made more explicit, highlighting the critical path between agencies.

4.3   Maximise the impact of the 16/6 project

Housing and infrastructure projects have profound impacts on all aspects of the households and communities they serve. Arup ID worked with Engineers against Poverty to co-develop ASPIRE; a software based tool to help project teams to maximise the positive impacts of their work. Arup ID have used the ASPIRE tool both to evaluate the long-term impact of post-disaster housing programmes[4] and to inform the design and implementation of social infrastructure.

Using project documentation and data collected during the inception mission a high-level preliminary assessment has been completed (see graphic output below). A complete ASPIRE assessment could provide the PMU with a baseline understanding of the impact of the 16/6 project on sustainability and poverty reduction. This will support each partner agency in understanding the interrelationship between their activities, their contribution towards overall project outcomes, and identify opportunities to maximise the project impact on sustainability and poverty reduction. If this initial assessment proves valuable to the PMU it could be repeated at key stages in the project lifecycle to increase the quality of the project over time.
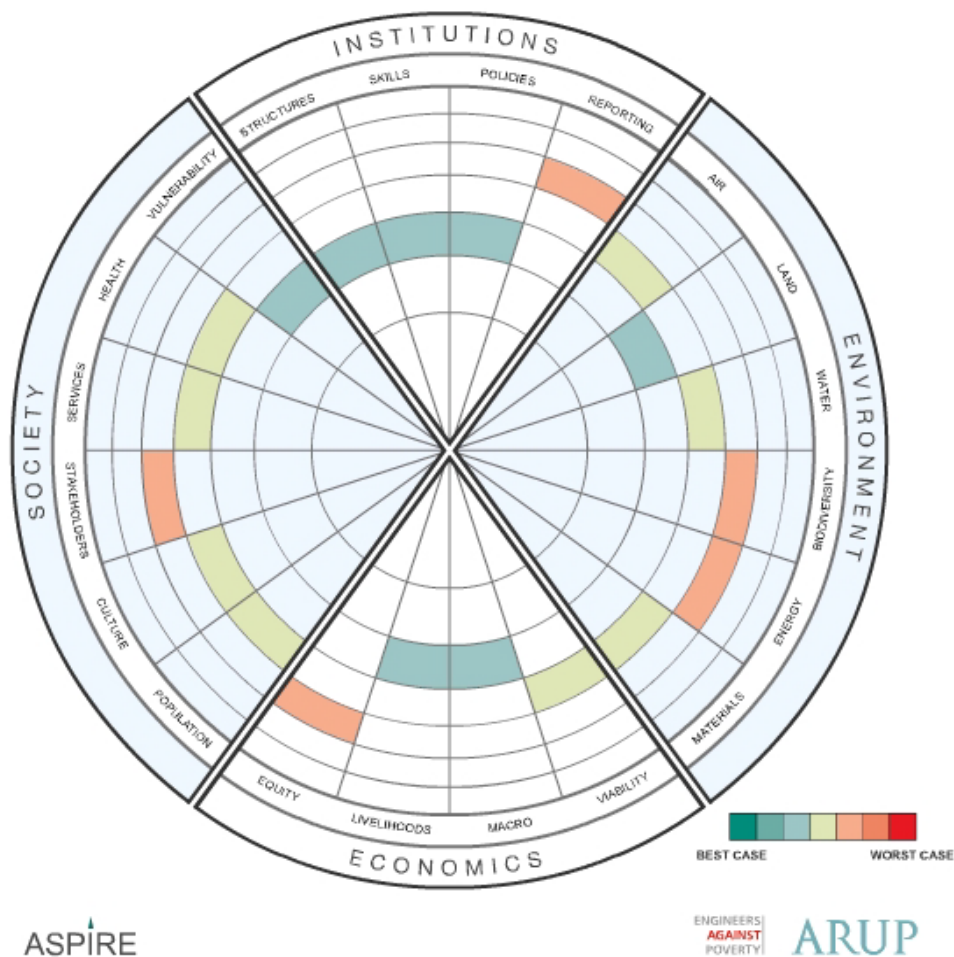

Figure 1   Draft ASPIRE assessment for 16/6

Key questions arising out of the preliminary ASPIRE assessment are:

- How can information and knowledge be shared between project stakeholders and communities? What are the most appropriate channels of communication? What is the monitoring and evaluation strategy for the 16/6 programme? (Reporting)
- How can the project maintain or enhance the quality of the environment? Will an environmental assessment be undertaken? Will an environment risk management plan be developed? (Biodiversity)
- How can the housing and infrastructure minimise the consumption of energy? Can the project encourage the use of renewable energy resources? (Energy)
- How can the project ensure that benefits accrue equitably to all members of the community? Will the operation and maintenance costs of housing and infrastructure be affordable to families and communities in the long term? (Equity)

How can the project identify and include all stakeholders? What is the community engagement process? Will complaints mechanisms be established? (Stakeholders)

4.4   Focus on neighbourhood-level strategies

In order to maximise the opportunities for the neighbourhoods a plot-by-plot approach should be avoided. Currently the project is most clearly defined at the house level; the state of a house determines amount of investment and intervention. This is a useful mechanism for getting a basis of understanding of the overall investment needed for the project, but in implementation it will reduce opportunities. First of all the investments only address the most visible targets in the neighbourhoods, but as we have seen there are several categories of affected people, such as those in non-permanent housing within the neighbourhoods, whose needs are not currently being addressed. Also the investments do not differentiate between those in need of full support, and those for whom assistance and access to micro-credit may be a more appropriate response.

Starting with any individual plot interventions carry the risk that the implementation of important social infrastructure, such as water or road access could be made more difficult, or make the plot intervention redundant. The neighbourhoods are generally very densely built already which means that there is minimal flexibility for densification or infrastructure investments.

Starting at the neighbourhood level rather than the household level offers the potential to better utilise the limited resources to obtain the project outcomes. As shown in section 5, the neighbourhoods can be grouped according to key risks and opportunities, which will help simplify and optimise the process.

4.5   Make the community central to the process

It is very important that the community is empowered and this means that setting up the Community Platforms is a critical initial step. The project involves several interdependent processes such as risk mapping, and has impacts upon the community, such as IDPs returning. Thus different levels of participation from the community may be thus be required, depending on what these processes and impacts are, how much external expertise is required, and what the desired outcome is. An example of the different levels of participation is provided in figure 1. Greater participation is required initially in the process in order to gain the confidence and buy-in of the community. Once the key decisions have been made it is likely that progress will become more important than micro-level decision-making.

Inform   To provide balanced and objective information to assist participants to understand the problems, alternatives, opportunities and solutions.

Consult   To obtain participant feedback on analysis, alternatives and/or decisions.

Involve   To work directly with participants throughout the process to ensure that participants concerns and aspirations are consistently understood and considered.

Collaborate   To partner with participants in each aspect of the decision including the development of alternatives and the identification of the preferred solution.

Delegate   To place the final decision making in the hands of the participants.

Commitment to Empowerment

Adapted from People and Participation, Involve, 2004

Figure 2: Ladder of Participation

4.6   Adopt an owner-driven approach

In owner- or community-driven reconstruction programmes households and communities lead decision-making throughout the reconstruction process. These types of programmes build knowledge and skills in individuals, increase social cohesion and political representation within the community and maximise local livelihood opportunities in addition to reconstructing housing and infrastructure. They have significant impacts in terms of catalysing recovery and building sustainable and resilient communities in the long term.

Owner-driven housing reconstruction does not necessarily mean that households build their own houses, but it does mean that they are play a central role in the assessment, planning, design, construction, monitoring and evaluation of the housing reconstruction programme. Households are typically provided with a combination of cash, vouchers or materials and technical assistance to repair or rebuild their houses. They may undertake the construction work themselves or employ family members or local contractors/labourers, or a use a combination of these options.

A community-driven process for infrastructure reconstruction adopts a similar approach but at a larger scale. The community assesses its hazards and vulnerabilities, prioritises actions, and manages the implementation and monitoring of infrastructure interventions. Financial assistance/vouchers or materials are provided directly to the community committee and they are provided with technical and managerial assistance to successfully implement the prioritised activities.

Adopting an owner-driven approach to housing and infrastructure repair and reconstruction would require UNOPS to shift their approach from providing housing and infrastructure products to enabling families and communities to meet their own housing and infrastructure needs with support from UNOPS and other external agencies. While owner-driven approaches can be viewed as introducing complexity, owner-driven reconstruction programmes can actually reduce

complexity as each household is empowered to use the housing assistance however they like, as long as they meet pre-defined standards of quality which are regulated by UNOPS or the MTPTC.

An owner-driven approach to the housing repair component of 16/6 might include the following steps:

| | 1. Households complete a detailed damage assessment using a pre-agreed checklist then this is verified by a UNOPS site engineer.
2. All households eligible for repair assistance attend training in repair techniques.
3. Households are provided with sufficient, high quality materials to undertake the repairs identified in their damage assessment.
4. Households are provided with financial support which they can use either to employ local labourers (from a list of pre-approved contractors who have received training from UNOPS/ILO) or place in a micro-saving account (if they chose to do the work themselves).
5. UNOPS site engineers complete regular monitoring of repair activities and provide technical assistance as required.
6. MTPTC complete a final assessment of the repair activities and certify that they have been completed correctly.
7. Households are provided with a final cash lump sum (deposited into a micro-saving account) if they receive MTPTC certification. |

5   Housing Pathways

The housing component of the 16/6 project includes the repair and reconstruction of partially damaged (yellow tagged) and heavily damaged (red tagged) houses in low, medium and high risk zones within the neighbourhoods. This is supported by community-prioritised infrastructure at neighbourhood level.

This chapter introduces a housing assistance framework; identifying the twelve current housing conditions of families living in the 16/6 neighbourhoods. The current housing conditions are then combined with existing and proposed methods of assistance (repair, rebuild, debris removal and hazard mitigation) to develop housing assistance pathways for households living in medium and low risk zones within the neighbourhoods.

The purpose of the housing assistance pathways is to identify how UNOPS's proposed methods of assistance support families within the neighbourhoods on their journey towards safer houses in safer locations. The development of the pathways also identified a number of key issues for further consideration (opportunities for undamaged houses within the neighbourhoods, assisting families living in medium or high risk zones and the targeting of housing assistance. These are discussed in the final section of this chapter.

5.1   Housing assistance pathways

Housing conditions

According to the MTPTC damage assessment there are a total of 14,709 houses across the 16 neighbourhoods:

- 7,039 undamaged houses (green tagged);
- 3,944 partially damaged houses (yellow tagged);
- 3,726 heavily damaged houses (red tagged).

In addition, it was identified through Arup's site visits that there are significant numbers of families living in self-built, non-masonry shelters in some of the neighbourhoods.

Under the 16/6 programme $3,500 per house has been allocated for the assistance of families living in red houses and $1,500 for the assistance of families living in yellow houses. Financial assistance has not been allocated to those families living in green houses or those in self-built, non-masonry shelters.

Site conditions

Port-au-Prince is subject to a number of natural hazards (including earthquakes, hurricanes, flooding and landslides) and many of the neighbourhoods experience some or all of these risks. Within each neighbourhood there will be different levels of exposure to natural hazards. These could be roughly classified as:

- 'green zones' – low risk areas experiencing few natural hazards
- 'yellow zones' – medium risk areas subject to one (or more) hazard(s) which could potentially be mitigated through community- or plot-level infrastructure
- 'red zones' – high risk areas experiencing multiple hazards which are too complex/expensive to be mitigated within the constraints of the 16/6 project

Housing assistance framework

The safety of a house is a function both of the building and its location. Thus, the four housing conditions and three site conditions can be combined to generate a housing assistance framework of 12 housing situations depending on the 'zone' and extent of damage (see Figure 3).

Figure 3 Housing assistance framework

Methods of assistance

UNOPS has recently completed a yellow house repair programme for 800 houses in Bristou and it has an ongoing debris removal programme in the downtown and Carrefour Feuille areas of Port-au-Prince. It is intended that these two methods of assistance are incorporated into the 16/6 programme. In addition to these two existing methods of assistance UNOPS is currently investigating the cost benefit of retrofitting yellow houses and options to rebuild red houses.

The holistic neighbourhood approach adopted in the 16/6 project means that hazard mitigation to reduce exposure to risks (either as a prioritised community-level intervention or on a plot-by-plot basis) can also be considered as an additional method of assistance for those houses situated in yellow zones within the neighbourhoods. Between $0.5 to $1.5 million has been allocated to each neighbourhood for community-prioritised infrastructure interventions tackling basic services, social infrastructure, connectivity or hazard mitigation. Depending on the decision of the Community Platform these may or may not be targeted on hazard mitigation for yellow zones.

Housing assistance pathways

Combinations of these four methods of assistance can support all households living in red or yellow houses on their journey towards either repairing their existing house or rebuilding a safer house, for those whose house was completely demolished. These housing assistance pathways are illustrated in the diagram below.
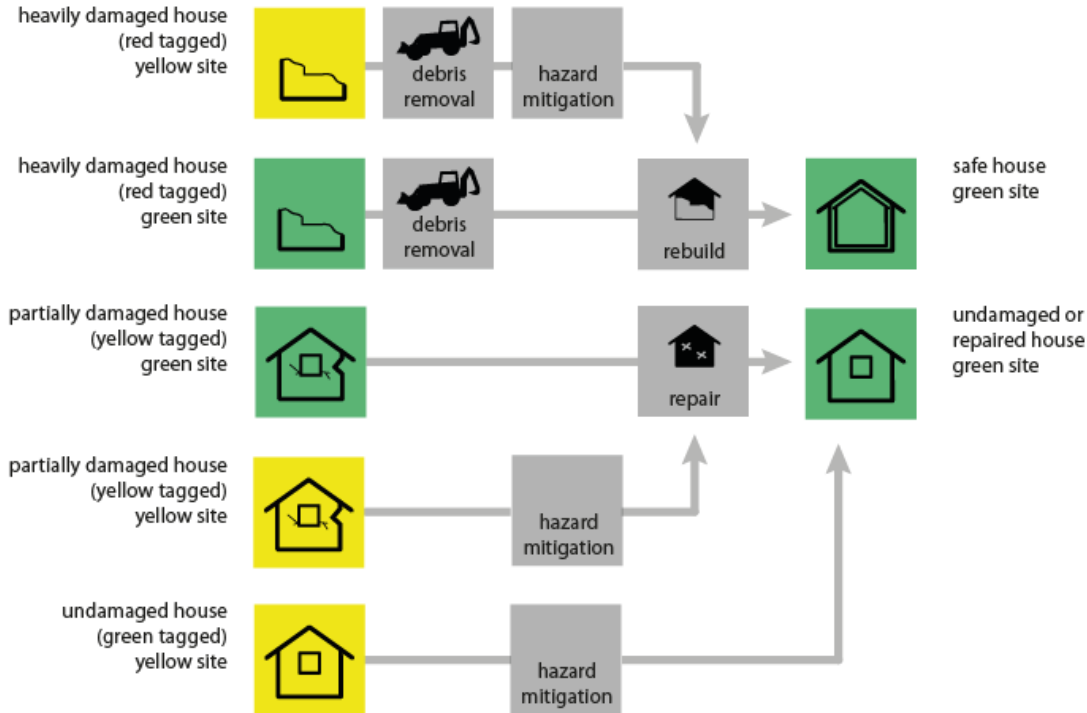
Figure 4 Housing assistance pathways: houses on green or yellow sites

5.2   Key issues

Undamaged houses in green zones

A classification of 'green' in the MTPTC damage assessment means that the house was not damaged during the earthquake. It does not mean that it is 'safe' or resilient to the effects of future hazards. There is currently no financial assistance allocated to the support of families living in green houses on green sites. However, it is possible that families living in green houses on green sites could contribute to the reconstruction of safer housing and neighbourhoods, the stimulation of local economic activity and the return of displaced families if suitable assistance were provided.
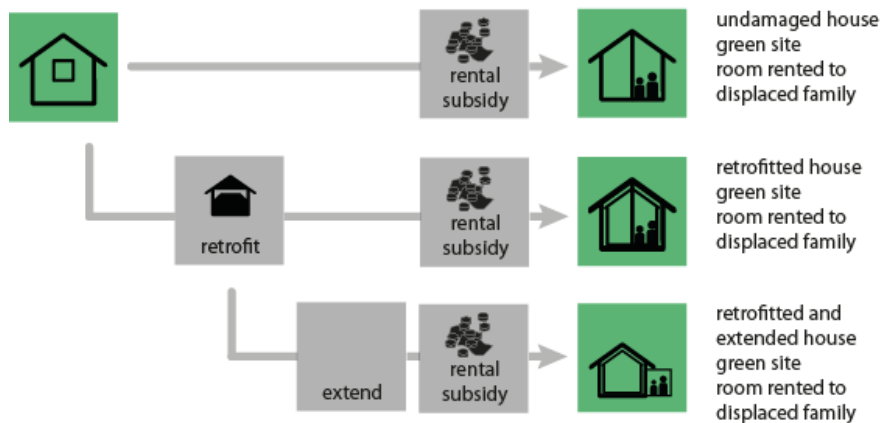
Figure 5 Housing assistance pathways: undamaged houses on green sites

Families could be encouraged to **retrofit** and **extend** their houses if information and technical assistance was provided, good quality materials and labour were locally available and they had access to microfinance to invest in improvements to their homes.

An information campaign within the neighbourhoods to raise awareness of the IOM **rental subsidy** for displaced families could encourage families with housing to rent rooms or extensions to displaced families. A list of rooms to rent in each neighbourhood could be provided to IOM to increase the efficiency of the camp closure process and support displaced families in returning to their original neighbourhoods.

Green zones

Arup's site visits identified vacant plots within green zones in some neighbourhoods – particularly in Delmas and Maïs Gaté – and additional green sites will become available through the reconstruction process as red houses are demolished and debris removed. Clusters of green sites could provide opportunities for community infrastructure or housing densification if: land tenure can be established and the land purchased or donated; the community prioritise community infrastructure or housing densification in these areas; and individual plot owners are willing to participate.

Clusters of green sites (5-10 plots) could provide sites for community infrastructure or an opportunity to develop a different housing typology which allows densification. To minimise engineering and construction complexity buildings should remain at two stories only. Households would need to negotiate over possible plot regularisation and a bespoke design might need to be developed.

Clusters of green sites (e.g. more than 2,000 m^2) could provide an opportunity for greater housing densification – up to four stories. However, medium-rise housing typologies require significant engineering and more complex construction techniques and this would take longer to complete. Densification up to four stories might have significant long-term benefits on some sites, but alternative accommodation would need to be provided for the families during the construction process.

Yellow zones

Hazard mitigation to reduce exposure is a critical method of assistance for households situated in yellow zones (see Figure 4) and an important strategy in maximising the potential of the housing stock. Hazard mitigation will either be at neighbourhood level (e.g. terracing or planting steep

hillsides or embankment of ravines), household level (e.g. groundworks or plot-specific storm drainage), or a combination of both, depending on the type of hazard experienced[5].

Hazard mitigation at the neighbourhood level requires consultation with the community and this may delay housing assistance to families living in yellow zones. Additionally, hazard mitigation may not be prioritised by the community platform – or they may prioritise this only in the areas of most significant risk and not cover all areas of the yellow zones.

A strategy for assistance for households living in yellow zones which do not receive the benefits of neighbourhood-level hazard mitigation may be required if this situation develops. A key question is whether plot-specific hazard mitigation (e.g. terracing or groundworks) for specific households would then be funded out of the budget allocated to neighbourhood-level infrastructure interventions; the per household budget allocation could not cover this in addition to housing repair or reconstruction.

Red Zones

While the categorisation of areas as 'red zones' should be minimised it is likely that some houses are situated within areas experiencing multiple hazards which are too complex or expensive to be mitigated within the constraints of the 16/6 project.

If the $3,500 financial assistance allocated to heavily damaged (red tagged) houses is viewed as a method of assisting a family (rather than reconstructing a building) then families living in heavily damaged houses within red zones could use the opportunity of reconstruction to rebuild their house in a safer (green or yellow) area within the neighbourhood. This type of localised relocation within the neighbourhood can be accommodated within the community planning process and makes an important contribution to overall risk reduction within the neighbourhood.

It is possible (although relatively unlikely) that there will be families living in undamaged (green) or partially damaged (yellow) houses within red zones. These families may have made significant investment in their houses[6], and have limited financial assistance allocated to them as part of the 16/6 project, so they will be less inclined to relocate during the reconstruction process. A strategy for assistance for these families will need to be developed during the community planning process. Do they want to relocate and can this be accommodated or can plot specific hazard mitigation measures/building restrictions mitigate the risks sufficiently for them to remain in-situ?

Renters and multiple-occupancy houses/non-masonry shelters

The figure below illustrates the number of undamaged, partially damaged and heavily damaged houses in relation to the number of families in each neighbourhood. Overall there is a difference of approximately 50% between the number of houses in the 16 neighbourhoods (14,709) and the number of families (28,216).

While it is possible that part of this discrepancy is a result of data gathered from different sources not being directly comparable[7], the difference between the number of houses and the number of families is worthy of further consideration. Were these additional families renting accommodation from families living in the houses and will repair and reconstruction of partially

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[5] It is understood that repair, rebuild and retrofit programmes for the houses themselves will all include hazard mitigation measures (e.g. raised floor levels to reduce flooding, seismic and hurricane resistant design). As these elements are incorporated within all housing programmes they are not considered in this discussion of additional hazard mitigation required for houses within yellow zones.

[6] Based on the assumption that their houses have not experienced significant damage in the earthquake and are therefore of a higher quality than other houses.

[7] It is understood that the data on the number of houses comes from the damage assessment while the number of families may be reported by local government.

and heavily damaged houses automatically mean that they receive assistance? Or are these the families living in self-built non-masonry shelters who are presently ineligible for housing assistance through the 16/6 project?
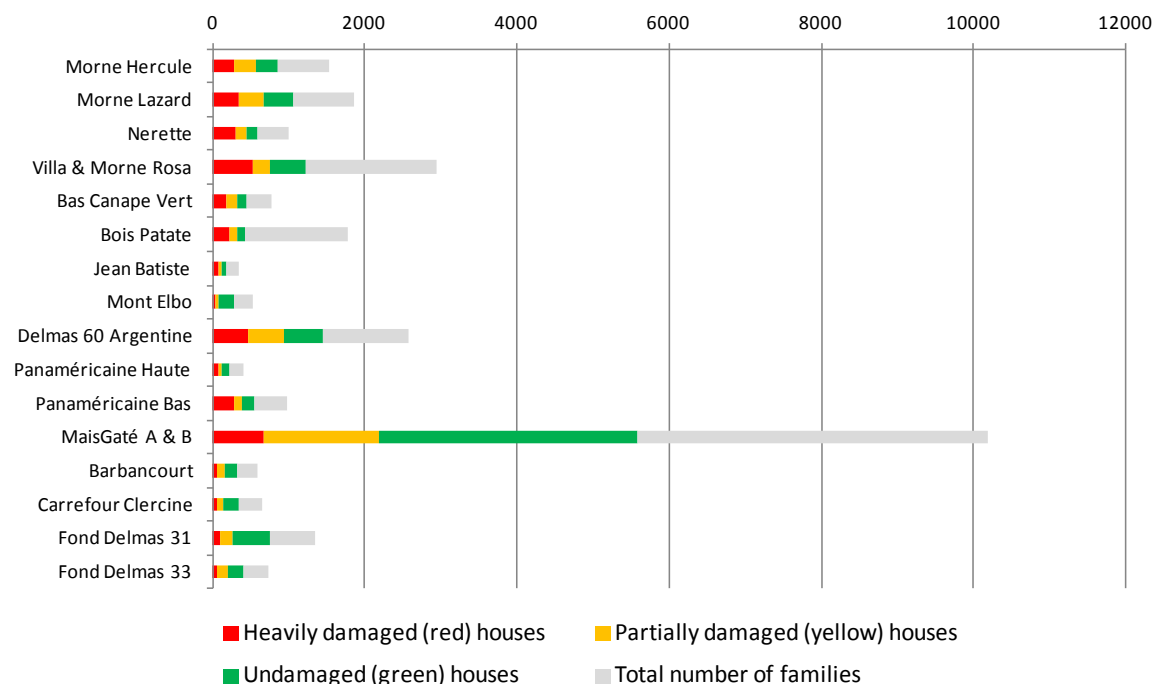
Figure 6 Number of families versus number of houses[8]

Prioritisation of housing needs

Budgets available for post-disaster reconstruction rarely cover the needs of those affected by the disaster let alone the housing requirements of those living in sub-standard housing before the disaster. Consequently, a key issue in any post-disaster reconstruction programme is determining who is eligible to receive housing assistance. Before commencing the housing component of the 16/6 programme beneficiary selection criteria will need to be developed and a process established for beneficiary identification, and verification and publication of the final results. Key questions in beneficiary selection include:

- How flexible is the housing assistance already allocated? Is there potential to redistribute this at community level?
- Is housing assistance allocated to a house (building) or a household (family)?
- How does the housing assistance support families who previously rented?
- Should housing assistance target households which have suffered most damage or those which are most vulnerable?
- Will housing assistance be provided to middle-income families (perhaps defined as houses over a certain m^2)?
- How will the most vulnerable families be identified and included?

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[8] Based on data provided in the *Document de Programme*, revision 28.07.2011.

6   Neighbourhood Pathways

The neighbourhood pathways focus on creating a consistent approach at a neighbourhood level. This component addresses the lack of infrastructure in the residential areas and the need to reduce hazard risk overall, and the levels of housing.

The neighbourhood pathways create a framework that allows alignment of the aspirations and needs of the community with those of the national and local governments, whilst recognising the existing capacity of the stakeholders and the resources involved in 16/6.

Our approach to the development of neighbourhood pathways for 16/6 responds to four key questions:

- What type of infrastructure should 16/6 implement in the neighbourhoods?
- What opportunity is there for increasing housing density?
- Where should 16/6 implement infrastructure?
- How should specific interventions be prioritised?

The suggested framework to approach these questions is presented in the following pages. Firstly, we provide an initial list of possible interventions in the public space that should be evaluated by UNOPS and, more importantly, prioritised by the community. This list includes interventions in the four types of infrastructure addressed by this report; comprising basic infrastructure, community infrastructure, connectivity infrastructure and hazard mitigation infrastructure. Secondly, we analysed and categorised the 16 *quartiers* to get an initial insight into the type of interventions that will make a difference. Finally, we have proposed an initial pathway that illustrate how the various types of infrastructure can be delivered with community participation whilst responding to the urgency of the 16/6 initiative.

6.1   What ?– Neighbourhood Infrastructure

Neighbourhood reconstruction will be created by a diverse group of projects in conjunction with the housing strategy. As a starting point, we propose a list of components that will define the options for investments in the public space. Following confirmation of the local capacity, this can then be used to optimise the process of prioritisation within the communities.

The definition of the neighbourhood infrastructure components responds to the following principles:

- Maximise impact in the community, selecting the pieces of infrastructure that will be easily accessible and improve quality of life and well-being.
- Minimise physical impact on private property, providing a variety of alternatives of infrastructure investments that will make use of the public spaces in the community.
- Shift attention from camps to neighbourhoods by clarifying the extent and characteristics of the investment options for the neighbourhood.
- Use UNOPS expertise to detect pieces of infrastructure that can be implemented by UNOPS's skills in Haiti and in the region. This will create a comparative advantage to other infrastructure options that may require lengthy feasibility studies. This, however, does not rule out elements of infrastructure that can be implemented with funding additional to 16/6 such as UNICEF school funds.

The initial list of neighbourhood infrastructure elements have been categorised into the following four groups: basic infrastructure; social infrastructure; connectivity; and hazard mitigations. Among these, we have highlighted critical infrastructure that must be designed and implemented with a higher level of resilience to environmental hazard such as earthquakes, floods and hurricanes. Critical infrastructure must survive these types of events as they will need to be operational after a disaster. Thus, variables such as their location should be carefully discussed with the community in order to avoid floodplains or areas with geotechnical risk.

Basic Infrastructure	Social Infrastructure
• **Access to potable water (water mains/community shops) (C)** • **Adequate sanitation (C)** • **Community foul drainage system and treatment plant (C)** • **Surface water drainage system (C)** • Electricity supply to each dwelling or along primary and secondary access roads • Street lighting • Waste collection points	• **Schools (C)** • **Health clinic/local hospitals (C)** • Community meeting space • Places of worship • Sports fields, open space
Connectivity Infrastructure • **Access roads (C)** • Pedestrian footpaths • Telecommunications • Footbridges across ravines	**Hazard Mitigation Infrastructure** • **Embankment and canal reinforcement along ravines (C)** • Construction of retaining walls along primary roads • Slope/embankment stabilisation
Note: (C) indicates critical infrastructure	

Table 2: Preliminary neighbourhood infrastructure interventions list.

An assessment of the community needs plus 'expert' opinions are needed to determine needs and priorities in each neighbourhood through engagement with the community platforms. We envisage that, based on the menu list provided in Table 2, UNOPS should assess its capacity to implement each of the elements of infrastructure described above. This self/assisted assessment will be fundamental to allow us to support UNOPS in the definition of the right skills in future stages of the project.

6.2   Where? – Characterisation and prioritisation of neighbourhoods

The neighbourhoods included in the 16/6 project present a variety of conditions in key variables such as location, topography, accessibility, provision of infrastructure, level of damage post-earthquake and plot subdivision. This diversity determines the need to provide strategies that respond to the specific characteristics of the site. However, the multiplicity of conditions can affect the deliverability of the project when too many tailored options need to be produced. In order to address this problem in a strategic manner, we propose a methodical approach that is focused on the categorisation of the neighbourhoods according to similar physical and spatial

characteristics. These have been termed 'key neighbourhood determinants', which can be understood as the main characteristics that help to identify likely interventions in the public space. The following table (Table 3) illustrates the key determinant identified for the 20 neighbourhoods associated with 16/6 and Champs de Mars.

Key Determinants	Why is this important?	Indicators
Topography	Impact of cost of infrastructure, ability to densify, cost of housing (foundations), and ability to provide equity (accessibility).	Steep slope
		Intermediate Slope
		Gentle slope
		Flat
Primary Circulation (Roads)	The provision of roads contributes to the community's perception of security, ability to respond to emergencies, access to livelihood in and out of the site. It also has an impact on the efficiency of project implementation.	Inexistent
		One entrance
		Two/Three entrances
		Multiple entrances
Secondary Circulation (roads and footpaths)	Local roads and footpaths contribute to the community's perception of security, and internal accessibility to services and amenities.	Many stairs and footpaths
		Few stairs and footpaths
		Local roads
Existing Water Infrastructure	Access to water contributes to community health, security and ability to access other needs (due to less time spent ill or looking for water).	Inexistent
		Pipe (Limited coverage)
		Wells
		Tanks
Hazards	Most neighbourhoods include zones that are already developed on risk areas. Hazards pose safety risks to the inhabitants.	River/Ravines
		Sea Flooding
		Ground Instability
		Increased seismic risk
		Water pollution
Community Facilities	Communities require access to several types of social services locally; these include at least health and education.	None
		Inadequate
		Adequate
MTPTC damage assessment	The existing MTPTC assessment of houses (red, yellow and green) provide a good overview of the condition of the residential stock in each of the neighbourhoods	Predominantly Red
		Predominantly Yellow
		Predominantly Green
Zoning	The hazard-based zoning process will identify areas that are less safe for development and critical infrastructure.	Predominantly Red
		Predominantly Yellow
		Predominantly Green
Plot Availability	The availability of plots makes possible the process of densification of the neighbourhoods	No sites available
		Sites filled with camps and T shelters
		Small sites available (>500 sqm)
		Large sites available

Table 3: Key determinants for neighbourhood classification

Based on the background information received and the site visits carried out by the UNOPS/Arup ID team, we have classified the 16 neighbourhoods in six groups. Following their addition to the 16/6 programme, we have also included the four neighbourhoods associated with Champs de Mars initiative.

Group	Neighbourhoods	Characterisation	Likely Strategy
A	Morne Hercule Nerette Morne Lazard Panamericaine Haute Panamericaine Bas	These neighbourhoods are situated on steep slopes, with limited road access. The settlements are high density and low income in character. These neighbourhoods suffered moderate damage in earthquake (affecting around 60% of the buildings)	Infrastructure interventions could be used to improve both road and footpath access, and to provide water supplies. These neighbourhoods are already dense and hazardous and thus are not suitable for densification.
B	Morne Ebo Morne Rosa	Settlement in these steeply sloping areas is typically high density and low income. The neighbourhoods are predominantly pedestrian, but suffered low levels of earthquake damage.	Infrastructure interventions could be used to improve both road and footpath access. This neighbourhood is already extremely dense and hazardous and thus is not suitable for densification.
C	Jean Baptiste Villa Rosa Bas Canape Vert Bois Patate	Typical buildings in these neighbourhoods are 1-2 stories high, sited along a main road which provides the opportunity for commercial activity. These sloping areas have road access, and some attempts have been made to mitigate hazards.	Recommend low level densification is undertaken on a plot-by-plot basis. There is some opportunity for clustered interventions.
D	Delmas 31 Delmas 33 Carrefour Clercine	These neighbourhoods are situated on area with gentle slopes and flat zones , without natural hazards. Settlement is characterized by mixed housing - big houses, small house, camps – and empty spaces. Access to both the internal and external economic community is available.	Neighbourhood presents the opportunity for densification, depending on the process of land acquisition. Mitigation should be undertaken to tackle the impact of the flooding drains.
E	Rue Barbancourt	Houses/buildings are typically 2-3 stories high in this neighbourhood; there are high levels of vertical density. Further space is only available in areas where buildings have been cleared. There is limited vehicular access, with a single road artery sandwiched between industrial sites.	No opportunity for horizontal expansion. Suggest a focus upon water provision and better building techniques to improve current practices and conditions.
F	Maïs Gaté A Maïs Gaté B	These two neighbourhoods are part of a larger *quartier*. They form a commercial front along a main road, providing access to the external economy. Settlement is dense, with residential buildings behind the commercial area, typically 1-2 stories high.	This neighbourhood presents an opportunity for low densification. Mitigation should be undertaken to tackle the impact of the nearby open drainage rivers.

G	Poupelard (4) Rue Mandela (7)	These low income neighbourhoods are sited on flat/sloping land, along the main road. This offers commercial activity as well as adjoining secondary road access. Buildings are typically 1-2 stories high.	Recommend densification is undertaken on a plot-by-plot basis.
H	Champ de Mars (5) Stadium S Cator (6)	These commercial areas, located on flat lands, are well served by main roads. Buildings are between 1-3 stories high and a constructed on larger plots, with larger floor areas.	Government-led urban planning/infrastructure interventions should be used to generate private investment in the area.

Table 4 Proposed neighbourhood classification

Deciding where to begin will be of benefit for UNOPS as this will optimise the mobilisation of resources at the early stages of the project. The neighbourhood groups identified in Table 4 have been prioritised according to the following criteria:

- Fast implementation – targeting neighbourhoods with empty plots and existing access corridors that can be developed or improved in the short term
- Visibility – targeting projects that will be politically significant and that will be used by the community in a day-to-day basis
- Achievable – prioritising areas with good access, simple sites and ready designs
- Impact – investment in risky areas and small plot sizes should be part of the priorities as these are the likely location for most vulnerable families
- Drawing on previous experience – for example, using the experience gained by the UNOPS team in successful projects such as debris removal and yellow houses repairs.

Groups	Neighbourhoods	Potential Priorities	Opportunities
A	Morne Hercule Nerette Morne Lazard Panamericaine Haute Panamericaine Bas	infrastructure interventions	opportunity for upgrading roads and footpaths
C	Jean Baptiste Villa Rosa Bas Canape Vert Bois Patate	infrastructure interventions	opportunity for hazard mitigation associated with public spaces
D	Delmas 31 Delmas 33 Carrefour Clercine	housing repairs addressing the majority of housing needs in these neighbourhoods	opportunity for densification in open spaces
F	Maïs Gaté A Maïs Gaté B	housing repairs addressing the majority of housing needs in these neighbourhoods	opportunity for low scale densification when replacing red houses or infrastructure on existing corridors
G	Poupelard (4) Rue Mandela (7)	wide visibility	opportunity for integrated housing and infrastructure upgrading as these are neighbourhoods that have most damage, low income population and greatest opportunity for densification

Table 5 Prioritised neighbourhoods and opportunities for intervention

The non-prioritised neighbourhoods correspond to more complex situations where interventions are likely to be implemented in the medium and long term. In the case of Morne Ebo, Morne Rosa and Rue Barbancourt, the solutions are less obvious due to the context and will need to be drawn primarily from a detailed community planning exercise. The Champ de Mars and Stadium Sylvio Cator neighbourhoods require a medium-term development plan able to integrate new roads, medium/high density housing and commercial uses.

6.3   How? – Neighbourhood Pathways

The neighbourhood pathways create a link between the prioritised neighbourhood and the possible interventions proposed. This connection is shaped by the integration of a process of decision making based on the participation of the community. This approach also assumes that this process will be based on the various inputs from the different sources: the community, government, professional advisors.

Decision making activities, such as prioritisation of investments, should not be seen as a linear process. Rather, these should be seen as interactive processes in which the technical input – with consultation with the local and national government – should be assessed against the knowledge, priorities, ideas and aspirations of the community.
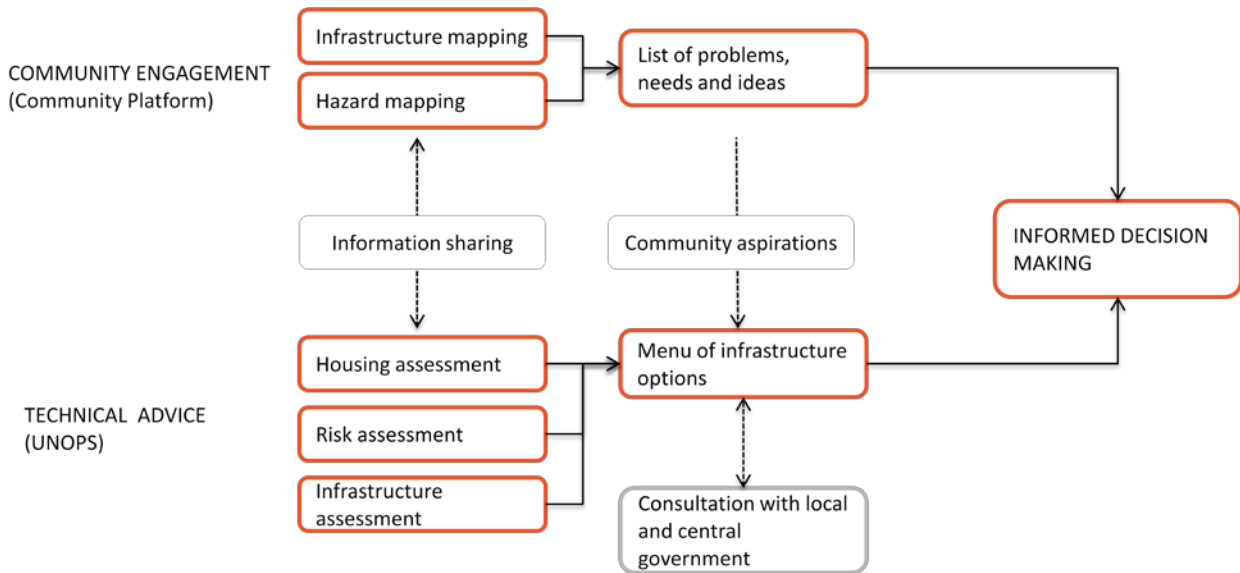
Figure 7: Informed decision making process

In this context, the infrastructure pathways will propose a methodical process to integrate both the technical input (provided by UNOPS and other agencies) and the local/user knowledge available in the community platforms. Once the minimum background information is available (risk and infrastructure assessments), the technical expertise within the 16/6 team can be mobilised in parallel with community-level activities. However, this expertise should be initially directed to support the activities of the community by developing the feasibility assessments of critical infrastructure so that this is understandable for the community in terms of cost and impact in the public space. This process can be illustrated according to the following diagram:
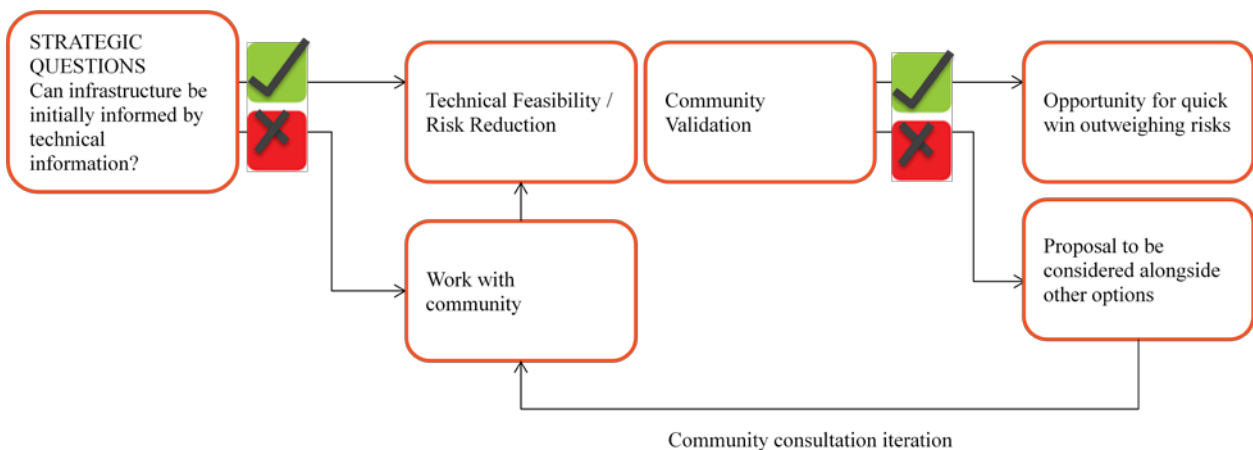
Figure 8: Infrastructure pathways process

Key to the development and execution of the neighbourhood pathways is the integration of the decisions of the community platform as a form of validation and communication with the local community. The correct implementation of the selected pieces of infrastructure will necessarily include the consultation of the community throughout the design process.

Examples of neighbourhood pathways are provided in Appendix F.

7   Suggestions for Quick Wins

What are the criteria for quick wins?

It is important that the project begins taking action and is seen to be making progress immediately. Where possible techniques and interventions can already be trialled with an understanding that they will provide lessons learnt to inform the wider strategy.

Successful opportunities to begin action should:

- Provide visible results to community and government
- Provide results in 1-3 months (before the 2012 carnival)
- Facilitate effectiveness for future interventions
- Not become redundant through core project interventions

Suggestions

In discussion with the project director Clement Balizaire, it was understood that the most important quick win has already been identified as the clearing of the camps and Champs de Mars initiative. Other suggestions we propose are as follows:

- Community Platforms: these are important first steps in the process and do not require significant lead-in time. If done correctly, the establishment of these bodies will provide immediate visibility of the project.
- Demonstration house for repairs: this offers the 16/6 team the opportunity to trial the proposed methods, create a presence in the community, and offer information to people who may wish to get on with repairs themselves.
- Establish community office, information centre and/or campaign: this will create a presence in the community that helps communicate what 16/6 is about and also will manage expectations about the scope of the project.
- Community-led interventions: some interventions are best identified, organised and implemented by the community themselves, giving them a sense of action and self-determination. Examples of likely requirements that could be carried out this way are improvements of footpaths and waste clean-up.
- Infrastructure interventions: other interventions may need more technical support and possible contractors and equipment, but may be of obvious need to the communities and pose little risk of interference in larger planning outcomes. Examples of these are pedestrian bridges and some road improvements.
- Housing: the programme for yellow house repairs is ready to be rolled out, and in certain locations may be at low risk of interfering with other neighbourhood level plans.
- Debris removal: there is such a programme already being successfully implemented that is helping to prepare the neighbourhoods for future interventions.
- UNOPS coordinator: a member of the UNOPS team assigned to each neighbourhood would increase visibility and ultimately improve awareness and coordination of activities within and outside 16/6.

Considerations

While the quick wins are important for building momentum amongst stakeholders and within communities, they risk setting the wrong approaches in motion and causing greater confusion in the communities.

As an example, in starting the yellow house repair programme the following considerations should be reviewed before selecting a neighbourhood in which to begin work:

- Is this the right use of limited resources or should emphasis be on information, access to technical expertise, and access to micro-finance? Is the house in a yellow or red zone? Zoning identification must be carried out first.

- Should a house be repaired or retrofitted? Retrofitting could help address other hazards and allow for safe extension of the houses which in turn can increase density.

- Is a single-dwelling house the best use of the land? Consider higher density or other infrastructure.

8   Next Steps

This report captures our initial findings and recommendations with regards to the project. The recommendations also highlight where there are likely opportunities for Arup to support the project in the short term.

1. **Develop housing pathways**

   In this report we have demonstrated a framework for thinking about and solving some of the housing pathway issues. It also highlights where there remain gaps where we have not had sufficient information or time to address. With further information, particularly about risk mapping, financing options and the flexibility of the current programme constraints (e.g. to what extent the project can be more an enabler than a provider) these pathways can be further developed into a decision-making tool.

   Further development of the housing pathways could include:
   - (Red House Design) A review of permanent housing programmes already completed or in progress in Haiti. This would include high-level comparison of housing designs, construction methodologies, homeowner participation strategies and financing options. A more detailed technical analysis may then be useful for particularly promising strategies.
   - (Red House Strategy) Identification and analysis of best-practice housing case studies from around the world. Covering housing designs, construction methodologies, homeowner participation strategies and financing options.
   - Development of the housing pathways to incorporate findings from the above.

2. **Community Enumeration and Planning Process**
   Due to the confusion and apprehension about the community-level processes we would propose to review the current proposal by UN Habitat, or others that may also be currently being implemented in Haiti, and advise on the critical processes and opportunities for optimisation.

3. **Develop neighbourhood pathways**

   We have initiated a framework to simplify the understanding of the diverse neighbourhoods and their gaps and opportunities. With further development the framework could be made into a tool that could help inform both the community planning process (assisting the community to look at the neighbourhood development long term) and to inform the 16/6 project mobilisation so that this could be carried out in parallel with community-level activities.

   Further development of the neighbourhood pathways could include:

   - Develop pathways in further detail including community-led activities and financing options.
   - Provide advice on the preparation of related material for work with community platforms.
   - Provide advice on the coordination of infrastructure proposals and the risk and infrastructure assessments.

4. Feedback on risk zoning process

One of the key risks for the project is the identification and management of the red zones. With the help of geotechnical experts and community resilience expertise, we can provide feedback on the criteria for this process. Alternatively, we may also be able to carry out the risk zoning.

5. Community Enumeration and Planning Process

Due to the confusion and apprehension about the community-level processes we would suggest we review the current proposal by UN-Habitat, or others that may also be currently being implemented in Haiti, and advice should be sought on the critical processes and opportunities for optimisation.

6. Undertake a project level ASPIRE assessment

This would provide a baseline understanding of the impact of the 16/6 project on sustainability and poverty reduction. This will support each partner agency in understanding the interrelationship between their activities, their contribution towards overall project outcomes, and identify opportunities to maximise the project impact on sustainability and poverty reduction. If this initial assessment proves valuable to the PMU it could be repeated at key stages in the project lifecycle to increase the quality of the project over time.

7. Develop Project Roadmap including structuring team around core capacities for delivery

The initial mission has highlighted processes and tools which we believe will strengthen the approach of the project. It is recognised however that due to the complexity of the project there is unlikely to be one linear solution. It is therefore important to understand the variables and likely scenarios for the project. A roadmap could help with decision-making and with dealing with changes in circumstances.

A roadmap would involve the project components such as:
- Closing of camps
- Prioritisation of neighbourhoods
- Prioritisation of interventions
- Sequencing of events

It would also identify the different scenario drivers, such as:
- Outcomes from risk mapping
- Outcomes from community consultation
- Interdependencies on other partners

8.   Advise on 16/6 capacity requirements

Following further clarity on the overall 16/6 strategy, we can advise on the roles and capacity requirements for the project.

For example, from what we currently understand about the project, we can recommend the following basic project structure:
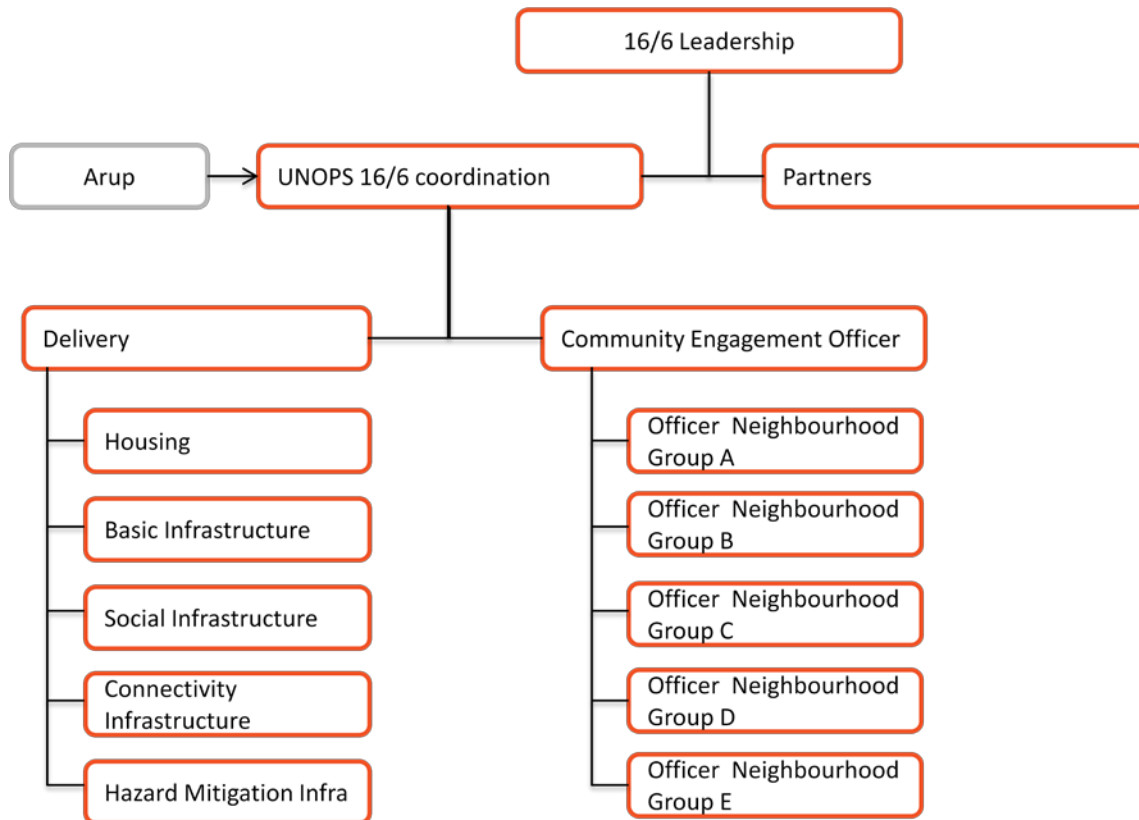
9.

10. **Ongoing regular visits to review**

In other situations of this nature, we have found that the project team has appreciated regular visits and informal reviews of the progress and emerging issues. Having an informed but external perspective can provide valuable insight at a more strategic level, but also identify operational problems that would benefit from a short intense resource focus. From experience, these are usually most effective if carried out for two weeks every two months. Teams for these visits can combine both consultants with continuing knowledge of the project, as well as specific expertise required at the particular time.

In addition, it may be possible to provide a permanent member of staff in Haiti to liaise between Arup and UNOPS.

We would like your feedback on what actions you think are most important and what timescale would best fit with your current plans.

Appendix A

Incoming Documents List and Meeting Held

Documents received from Felipe Munevar on Friday 21/10/2011

1. Final 16/6 *Document de Programme*. Provided as basis for the project and general road map.

2. Draft Initiation Critical Path brief, prepared in context of support mission from Regional Office

3. Project risk analysis matrix and proposed mitigation activities.

4. Terms of reference for the risk prevention plan for each zone.

5. Terms of reference of community platforms.

6. Internal email exchanges between UNDP and UNHabitat in terms of coordination between concurrent projects .

7. Maps of the intervention zones (PDF format), including Morne Hercule, Nerette and Morne Lazard

8. Request for proposal for Debris Management activities in the framework of 16/6.

9. Example of urban investment prioritization used in Medellin, Colombia. Currently on the table as a possible model to follow.

10. Draft questionnaire of a social survey to be conducted by UNOPS in the zone, for a representative sample.

11. Fact sheets of all neighbourhood reconstruction projects currently conducted in Port-au-Prince.

12. Project document for new add-on project to evacuate Champs de Mars.

Documents received from Emmett Fitzgeral on Tuesday 01/11/2011

1. Latest weekly report from Place Saint Pierre and Place Boyer (including figures for how many families are taking which option and going to which neighbourhoods).

2. Process map for the IOM processes in facilitating returns from camps

Documents received from Felipe Munevar on Thursday 03/11/2011

1. Example of seismic risk mapping in three neighbourhoods, including Morne Hercule, Nerette and Morne Lazard. This is currently developed by the UNOPS GIS team at MPTPC

2. Example of slope instability risk mapping in three neighbourhoods, including Morne Hercule, Nerette and Morne Lazard. This is currently developed by the UNOPS GIS team at MPTPC

   Mapping of legal constraints to urban development. This includes Morne Hercule, Nerette and Morne Lazard

Meetings and site visits attended by Arup / UNOPS team

1. 16/6 introduction, briefing presentation. UNOPS offices Port-au-Prince, Monday 24.10.2011

2. Site visit to Morne Hercule, Nerette and Morne Lazard. Tuesday 25.10. 2011

3. Meeting with Christophe Musaraganyi at the Ministry of Public Works. Tuesday 25.10. 2011

4. Site visit to Bristou, examining implementation of yellow houses strategy. Wednesday 26.10. 2011

5. Site visit to Champs de Mars and debris removal sites in downtown Port-au-Prince. Wednesday 26.10. 2011

6. Meeting with Dr. Elizabeth Hausler, CEO of Build Change. UNOPS offices Port-au-Prince. Wednesday 26.10. 2011

7. Meeting with Jean-Christophe Adrian and Maggie Stephenson, UN-Habitat. Thursday 27.10. 2011

8. Meeting with Julien Magnat, ILO. Thursday 27.10. 2011

9. Week 1 debriefing session with Brian Treacy, Felipe Munevar and Claude Andre Nadon. UNOPS offices Port-au-Prince. Friday 28.10.2011

10. Meeting with Clement Belizaire, Director of 16/6 project. Monday 31.10.2011

11. Meeting with Emmet Fitzgerald, IOM. Monday 31.10.2011

12. Week 2 debriefing session with Brian Treacy, Felipe Munevar, Claude Andre Nadon, Jean Sebastian Roca and Manoel Noronha. UNOPS offices Port-au-Prince, Thursday 03.11.2011

13. Mission close off meeting with Felipe Munevar. UNOPS offices Port-au-Prince, Friday 04.11.2011

Appendix B

Organisations working in 16/6 neighbourhoods

Activites des Organisations dans les quartiers

Quartier	Organisation	Abris Temporaires	Abris Permanentes	Réparations	Enlèvement des Gravats	Planification Communautaire	Énumération	Infrastructures	Systèmes de Mitigation du Risque	Eau	Assainissement	Gestion des Camps	Community Mobilization	Amelioration moyens subsistances	Training	Demolition des maisons rouges	Protection
- Morne Rosa	GOAL Ireland									x	x						
- Morne Rosa	CORDAID	x	x	x		x	x		x			x		x			
- Morne Rosa	GRET (Groupe de Recherche et d'Echanges Technologiques)					x				x							
- Villa Rosa	CORDAID	x	x	x		x	x					x		x			
- Villa Rosa	GRET (Groupe de Recherche et d'Echanges Technologiques)					x				x							
- Bas Canape Vert	GOAL Ireland	x		x	x	x											
- Bas Canape Vert	CHF INTERNATIONAL				x											x	
- Bas Canape Vert	World Vision								x	x	x	x					
- Bas Canape Vert	Build Change		Support Technique														
- Bois Patate	GOAL Ireland	x		x	x	x											
- Jean Baptiste	GOAL Ireland	x		x	x	x											
- Jean Baptiste	CHF INTERNATIONAL				x											x	
- Delmas 60 (Dybel Argentine)	GRET (Groupe de Recherche et d'Echanges Technologiques)					x				x							
- Morne Hercule (Delmas 64 & 68)	IOM CCCM Site Planning	x			x	x	x	x	x								
- Morne Hercule (Delmas 64 & 68)	GOAL Ireland									x	x						
- Morne Hercule (Delmas 64 & 68)	Catholic Relief Services (CRS)	x		x	x			x	x	x	x						
- Morne Lazard	Catholic Relief Services (CRS)	x		x	x			x	x	x	x					x	
- Morne Lazard	GOAL Ireland									x	x						
- Morne Lazard	Build Change		x														
- Nerette	Catholic Relief Services (CRS)	x		x	x			x	x	x	x					x	
- Nerette	GOAL Ireland									x	x						
- Pan-Américaine haute (Pierre Sully)																	
- Pan-Américaine bas	Catholic Relief Services (CRS)	x		x	x			x	x	x	x						
- Rue Babancourt																	
- Mais Gaté	Croix Rouge Française	x			x	x			x	x	x	x					
- Mais Gaté	Catholic Relief Services (CRS)	x		x	x			x	x	x	x						
- Mais Gaté	Red Cross Red Crescent So	x			x				x	x	x						
- Carrefour Clercine	World service of Mercy (WSM)	x									x						
- Carrefour Clercine	UNOPS								x								
- Delmas 31	Haven Haiti	x	x	x			x			x	x						
- Delmas 31	World Vision								x	x	x	x					
- Delmas 31	GRET (Groupe de Recherche et d'Echanges Technologiques)					x				x							
- Delmas 33	Croix Rouge Française	x			x				x	x	x						
- Delmas 33	Haven Haiti	x	x	x			x			x	x						
- Delmas 33	Catholic Relief Services (CRS)	x		x	x			x	x	x	x						
villa et morne Rosa	Dinepa									x							
villa et morne Rosa	IOM									x							
Morne Lazard	IOM	x															
Morne Lazard	Relief International																x
Morne Hercule	Relief International																x
Nerette	LWF											x					
Panamericaine bas	CHF INTERNATIONAL				x											x	
Bas Canapée Vert	ACF									x							
Villa Rosa	Architecture for Humanity					x											

Appendix C

Permanent Shelter Programmes

WHO	WHAT		WHERE		
Organization	Activities/ Service delivered	Status	Department (Admin1)	Commune (Admin2)	Domain
Base Realignment And Closure	Permanent Shelter	Ongoing	Ouest	Léogâne	EarthQuake
British Red Cross	Permanent Shelter	Ongoing	Ouest	Delmas	EarthQuake
Canadian Red Cross	Permanent Shelter	Ongoing	Sud-Est	La Vallee De Jacmel	EarthQuake
	Permanent Shelter	Ongoing	Sud-Est	Jacmel	EarthQuake
Caritas	Permanent Shelter	Ongoing	Sud-Est	Jacmel	EarthQuake
Caritas Austriche	Permanent Shelter	Ongoing	Ouest	Gressier	EarthQuake
Caritas Swiss	Permanent Shelter	Planned	Ouest	Léogâne	EarthQuake
	Permanent Shelter	Ongoing	Sud-Est	Anse-A-Pitre	EarthQuake
Christian AID	Permanent Shelter	Ongoing	Centre	Lascahobas	EarthQuake
	Permanent Shelter	Ongoing	Ouest	Carrefour	EarthQuake
CordAid	Permanent Shelter	Ongoing	Ouest	Grand-Goâve	EarthQuake
	Permanent Shelter	Planned	Sud-Est	Cayes-Jacmel	EarthQuake
CROSE	Permanent Shelter	Ongoing	Sud-Est	Jacmel	EarthQuake
	Permanent Shelter	Completed	Sud-Est	Bainet	EarthQuake
Diakonie Katastrophenhilfe	Permanent Shelter	Ongoing	Sud-Est	Cote-De-Fer	EarthQuake
	Permanent Shelter	Completed	Sud-Est	Jacmel	EarthQuake
Eglise Luthérienne	Permanent Shelter	Completed	Sud-Est	Jacmel	EarthQuake
Habitat for Humanity / ERRF	Permanent Shelter	Planned	Ouest	Léogâne	EarthQuake
	Permanent Shelter	Completed	Nippes	Petite-Rivière de	EarthQuake
HAVEN	Permanent Shelter	Completed	Nord-Est	Ouanaminthe	EarthQuake
	Permanent Shelter	Completed	Artibonite	Gonaïves	EarthQuake
HAVEN/MCC	Permanent Shelter	Ongoing	Ouest	Cabaret	EarthQuake
HAVEN/OXFAM	Permanent Shelter	Completed	Ouest	Delmas	EarthQuake
HAVEN/Plan	Permanent Shelter	Completed	Ouest	Croix-Des-Bouquets	EarthQuake
HEKS/EPER	Permanent Shelter	Planned	Ouest	Petit-Goâve	EarthQuake
	Permanent Shelter	Completed	Sud-Est	Jacmel	EarthQuake
International Organization for	Permanent Shelter	Planned	Sud	Les Cayes	
	Permanent Shelter	Ongoing	Ouest	Gressier	EarthQuake
	Permanent Shelter	Ongoing	Ouest	Léogâne	EarthQuake

Lutheran World Federation	Permanent Shelter	Planned	Ouest	Grand-Goave	
	Permanent Shelter	Planned	Ouest	Petit-Goave	
	Permanent Shelter	Planned	Ouest	Pétion-Ville	EarthQuake
Medair	Permanent Shelter	Ongoing	Sud-Est	Cote-De-Fer	EarthQuake
Mennonites	Permanent Shelter	Completed	Sud-Est	Cote-De-Fer	EarthQuake
Planete Urgence	Permanent Shelter	Ongoing	Sud-Est	Jacmel	EarthQuake
Welthungerhilfe/Agro Action	ePermanent Shelter	Ongoing	Ouest	Grand-Goâve	EarthQuake
Allemand	Permanent Shelter	Ongoing	Ouest	Delmas	EarthQuake
World Relief Haiti	Permanent Shelter	Ongoing	Ouest	Léogâne	EarthQuake

Appendix D

 Neighbourhood Groups
Characterisation

Key Determinants	Indicators	MORNE HERCULE	NERETTE	MORNE LAZARD	PANAMERICAINE HAUT	PANAMERICAINE BAS	MORNE ROSA	MORNE EBO
Topography	Steep slope	■	■	■	■		■	■
	Intermediate Slope					■		
	Gentle slope							
	Flat							
Primary Circulation (Roads)	Inexistent				■	■		■
	One entrance	■	■					
	Two/Three entrances			■			■	
	Multiple entrances							
Secondary Circulation	Many stairs and footpaths	■	■	■	■	■	■	■
	Few stairs and footpaths							
	Secondary roads							
Existing Water Infrastructure	Inexistent							
	Pipe (Limited coverage)	tbc	tbc	tbc	Non Potable	Non Potable	tbc	
	Wells							
	Water Points			1			1	1
Hazards	River / Ravines	■	■	■	■			
	Sea Flooding							
	Ground Instability	■	■	■				
	Water pollution	tbc	tbc	tbc				
Community Facilities	None		■	■	■	■		
	Inadequate	■						
	Adequate						■	■
Houses	Predominantly Red	34%	52%	32%	36%	50%	11%	9%
	Predominantly Yellow	32%	25%	31%	22%	21%	25%	21%
	Predominantly Green	34%	23%	37%	42%	29%	65%	70%
Zones	Predominantly Red							
	Predominantly Yellow	■	■	■	■	■	■	■
	Predominantly Green					■		
Plot Availability	No sites available		■					■
	Sites filled with camps and T shelters	■				Expansion Potential		
	Small sites available (>500 sqm)						■	
	Large sites available							
Potential for residential densification	Yes, large scale							
	Yes, small scale							
	No	■	■	■	■	Access Prob.	■	■

Key Determinants	Indicators	VILLA ROSA	BAS CANAPE VERT	JEAN BAPTISTE	BOIS PATATE	DELMAS 31	DELMAS 33	CARREFOUR CLERCINE
Topography	Steep slope		X					
	Intermediate Slope	X						
	Gentle slope			X	X	X	X	
	Flat							X
Primary Circulation (Roads)	Inexistent							
	One entrance							
	Two/Three entrances	X	X					
	Multiple entrances			X	X	X	X	X
Secondary Circulation	Many stairs and footpaths	X	X					X
	Few stairs and footpaths			X	X			
	Secondary roads			X	X	X	X	
Existing Water Infrastructure	Inexistent							
	Pipe (Limited coverage)	X	tbc					Non Potable
	Wells							X
	Water Points				1	3	3	3
Hazards	River / Ravines	X	X	X		X	TBC	X
	Sea Flooding							
	Ground Instability	X	X		tbc			
	Water pollution	X	X	X		X	X	ground water (tb
Community Facilities	None		X					
	Inadequate	X			no health			
	Adequate			X		Schools, Hospitals	Schools & Health	Police, Health
Houses	Predominantly Red	80%	42%	41%	51%	14%	13%	15%
	Predominantly Yellow	10%	30%	27%	25%	20%	33%	22%
	Predominantly Green	9%	28%	32%	24%	66%	52%	63%
Zones	Predominantly Red							
	Predominantly Yellow	X	X					
	Predominantly Green			X	X	X	X	X
Plot Availability	No sites available							
	Sites filled with camps and T shelters	X	X					
	Small sites available (>500 sqm)		X			X	X	
	Large sites available			X	X	X		in the better-off area
Potential for residential densification	Yes, large scale					X	X	
	Yes, small scale	X	X	X	X			X
	No							

Key Determinants	Indicators	RUE BARBANCOURT	MAIS GATE A	MAIS GATE B		POUPELARD	MANDELA (7)	DOWNTOWN (5)	STADIUM (6)
Topography	Steep slope								
	Intermediate Slope					■			
	Gentle slope								
	Flat	■	■	■			■	■	■
Primary Circulation (Roads)	Inexistent								
	One entrance	■							
	Two/Three entrances						■		
	Multiple entrances		■	■		■		■	■
Secondary Circulation	Many stairs and footpaths					■	■		
	Few stairs and footpaths	■							
	Secondary roads		■	■				■	■
Existing Water Infrastructure	Inexistent								
	Pipe (Limited coverage)	■	Non Potable	Non Potable		tbc	tbc		
	Wells							■	■
	Water Points	1	CISTERNS	CISTERNS		■	■		
Hazards	River / Ravines								
	Sea Flooding						■		
	Ground Instability					tbc	■		
	Water pollution						■		
Community Facilities	None	■							
	Inadequate								
	Adequate		■	■				police, schools	■
Houses	Predominantly Red	15%	12%	12%		(gray)	(gray)	(gray)	(gray)
	Predominantly Yellow	34%	28%	20%		(gray)	(gray)	(gray)	(gray)
	Predominantly Green	52%	60%	67%		(gray)	(gray)	(gray)	(gray)
Zones	Predominantly Red								
	Predominantly Yellow					■	tbc		
	Predominantly Green	■	■	■		■		■	■
Plot Availability	No sites available	■	■	■		■			
	Sites filled with camps and T shelters								
	Small sites available (>500 sqm)						■	■	■
	Large sites available							■	■
Potential for residential densification	Yes, large scale							Stimulate	■
	Yes, small scale		■	■		■	■		
	No	■							

Appendix E
Neighbourhood Analysis

1 Morne Hercule
2 Nerette
3 Morne Lazare
4 Panamericaine Haute
5 Panamericaine Bas
6 Morne Ebo
7 Morne Rosa
8 Jean Baptiste
9 Villa Rosa
10 Bas Canape Vert
11 Bois Patate
12 Delmas 31
13 Delmas 33
14 Carrefour Clercine
15 Rue Barbancourt
16 Mais Gate A
17 Mais Gate B

18 Poupalard
19 Rue Mandela
20 Champs de Mars
21 Stadium S Cator
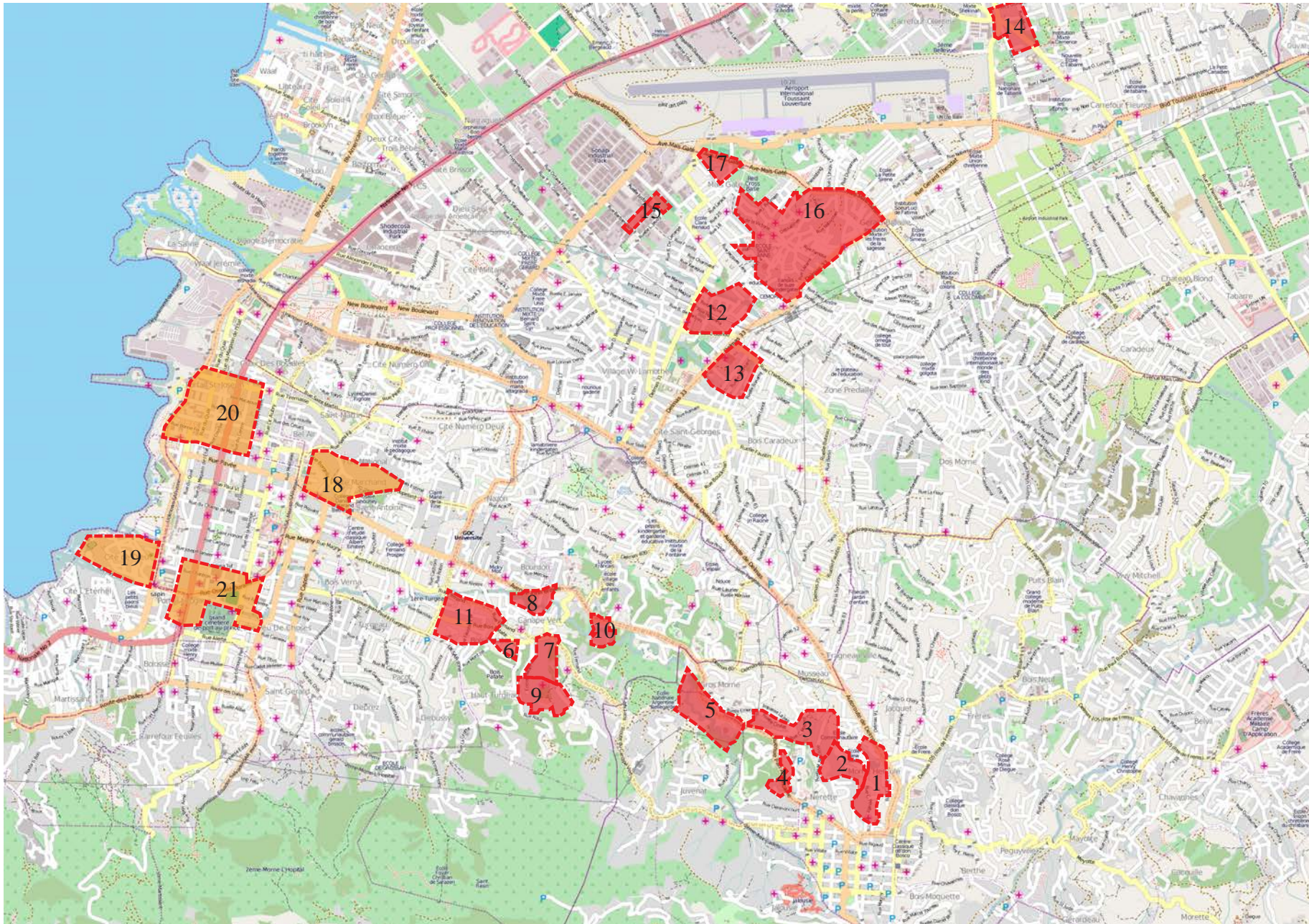
M Hercule, M Lazard, Nerette, Panamericaine Haute & Panamericaine Bas

These neighbourhoods are situated on steep slopes, with limited road access. The settlements are high density and low income in character.

Basic and Social Infrastructure
There is access to Service de Santé FONDEFH but the neighbourhoods have no water points.

MPTPC Damage Assessment
• 5758 families
• 1290 red houses, 911 yellow houses, 1080 green houses.
• Displaced families in 3 camps: Pl. Boyer, Pl. St. Pierre, Primature

Future Strategy/Recommendations
Infrastructure interventions could be used to improve both road and footpath access, and to provide water supplies. This neighbourhood is already extremely dense thus is not suitable for densification.
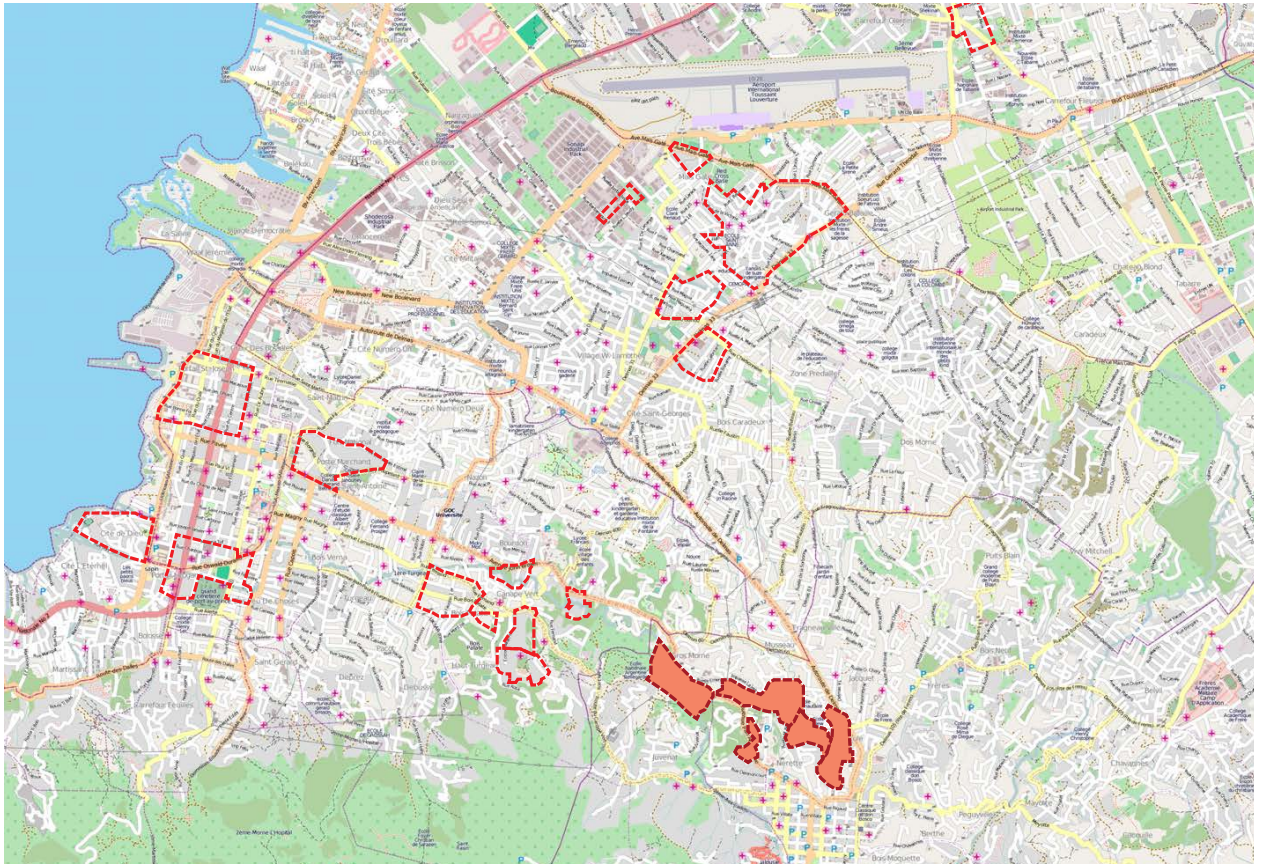
Morne Ebo & Morne Rosa
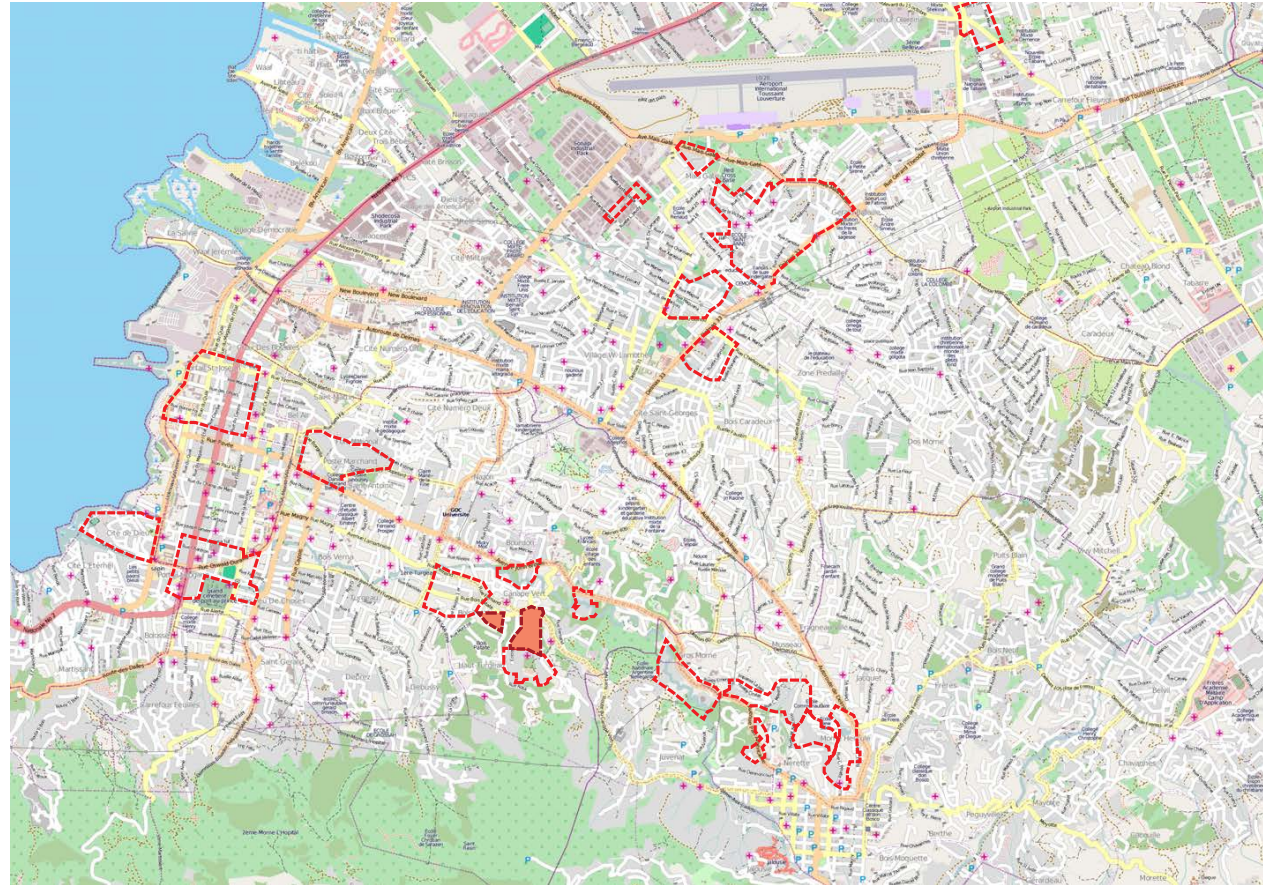
Villa Rosa, Jean Baptiste, Bas Canape Vert & B. Patate

Typical buildings in these neighbourhoods are 1-2 stories high, sited along a main road which provides the opportunity for commercial activity. These sloping areas have road access, and some attempts have been made to mitigate hazards.

Basic and Social Infrastructure

Medical access in some of these areas can be reached at Hôpital Canapé Vert, Tente PSY (ACF), Dispensaire Cite Mericain, MdM, and Japanese BHC Unit. There are 2 water points here too.

MPTPC Damage Assessment

- 5833 families
- 949 red houses, 352 yellow houses, 342 green houses.
- Displaced families in 1 camp: Pl. Canapé Vert

Future Strategy/Recommendations

Future strategy/recommendations: Recommend densification is undertaken on a plot-by-plot basis. There is some opportunity for clustered interventions.
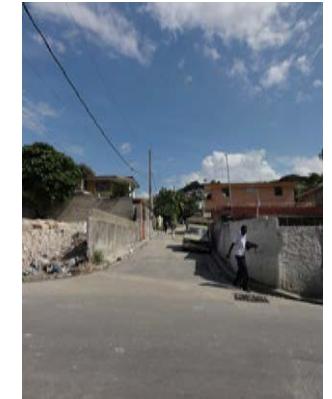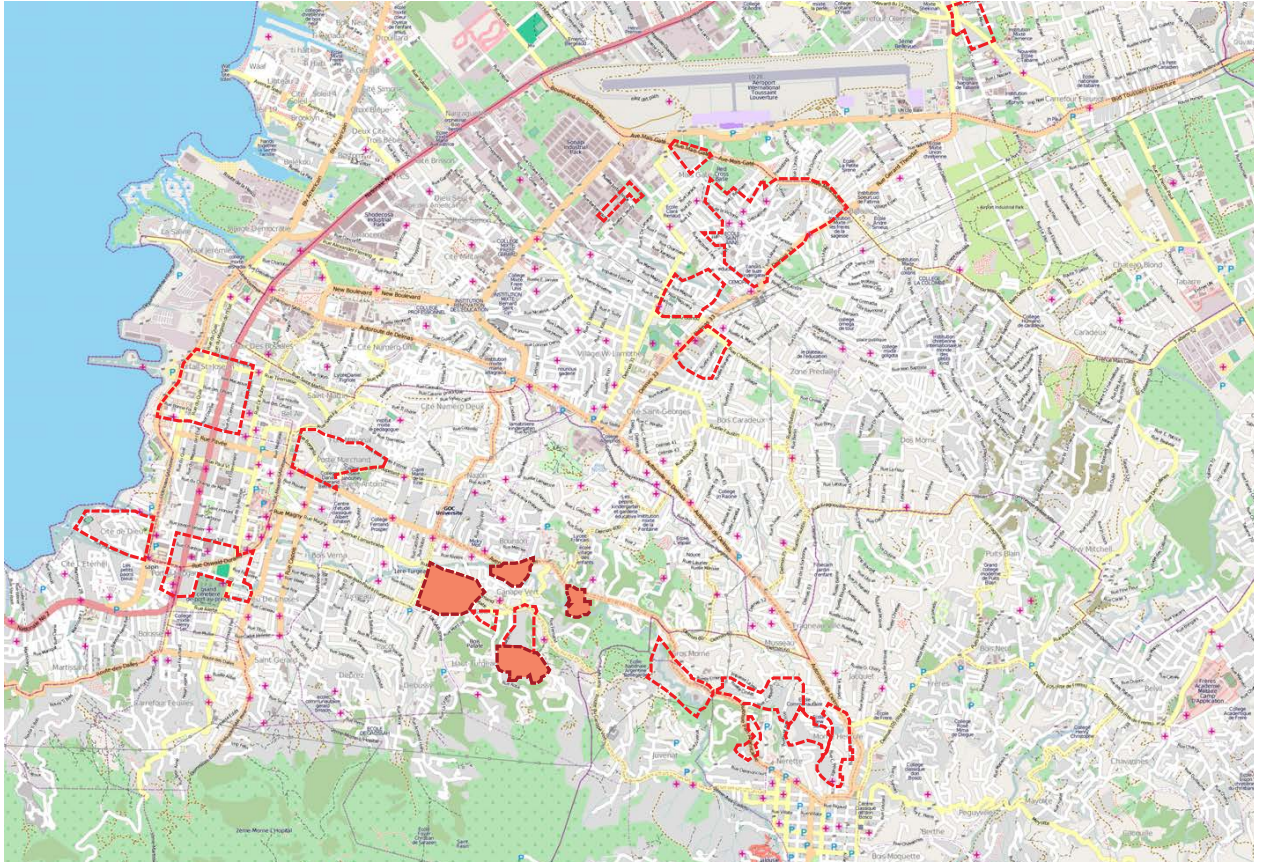
Carrefour Clercine & Delmas 31 and 33

These neighbourhoods are situation on hilly/flat land, without natural hazards. Settlement is characterized by mixed housing - big houses, small house, camps – and empty spaces. Access to both the internal and external economic community is available.

Basic and Social Infrastructure

Medical services can be accessed at CM de Tabarre + MSF (Clercine), Grace ChildrenHospital (from Delmas 31) and La Paix, Spanish/Columbian Field Team, and MSPP/CMS (from Delmas 33). Each of these neighbourhoods also contains 3 water points.

MPTPC Damage Assessment
- 2726 families
- 215 red houses, 362 yellow houses, 919 green houses.
- Displaced families in 1 camp: Maïs Gaté

Future Strategy/Recommendations

Neighbourhood presents the opportunity for densification, depending on the process of land acquisition. Mitigation should be undertaken to tackle the impact of the nearby drainage canals.
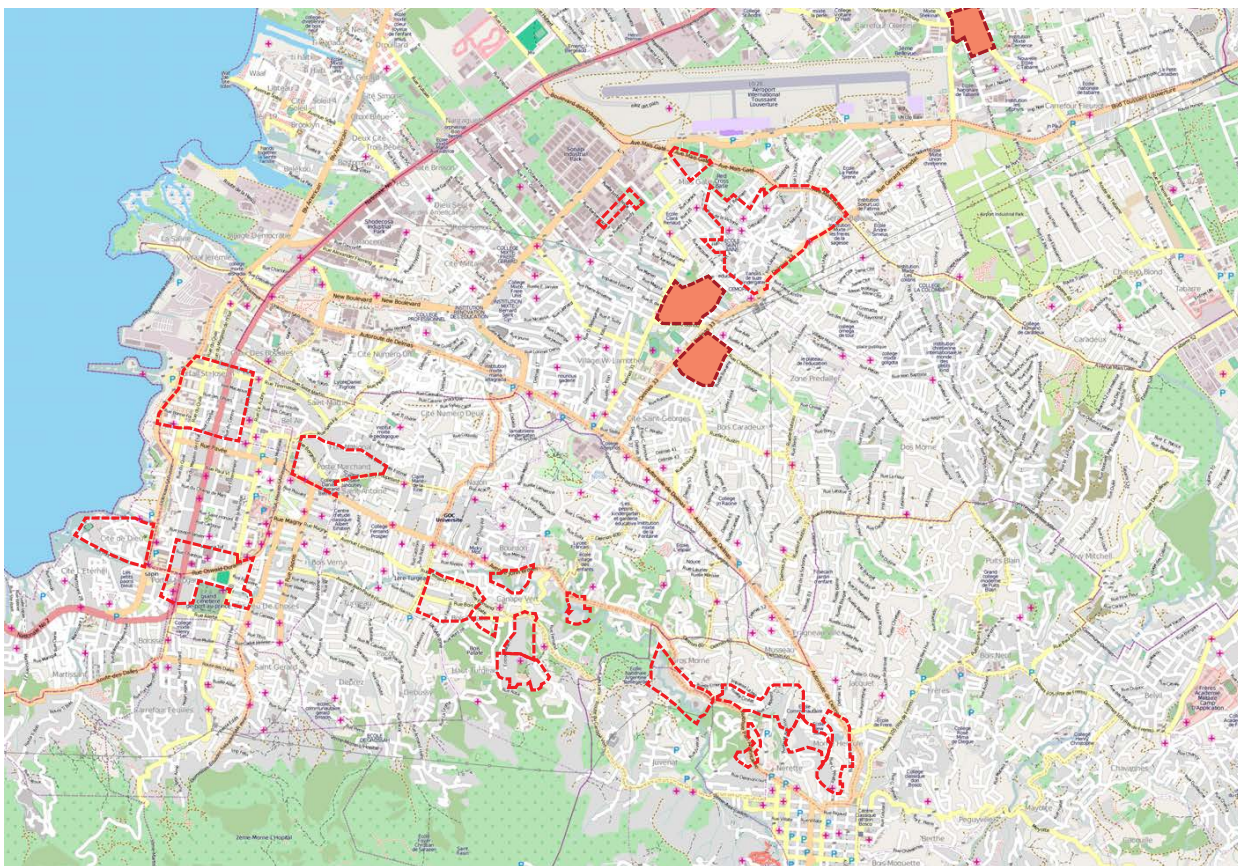
Rue Barbarncourt

Houses/buildings are typically 2-3 stories high in this neighbourhood; there are high levels of vertical density. Further space is only available in areas where buildings have been cleared. There is limited vehicular access, with a single road artery is sandwiched between industrial sites.

Basic and Social Infrastructure
The neighbourhood has no access to any medical facilities and has only 1 water point.

MPTPC Damage Assessment
• 599 families
• 48 red houses, 111 yellow houses, 171 green houses.
• Displaced families in 1 camp: Maïs Gaté

Future Strategy/Recommendations
No opportunity for horizontal expansion. Suggest a focus upon water provision and better building techniques to improve conditions.
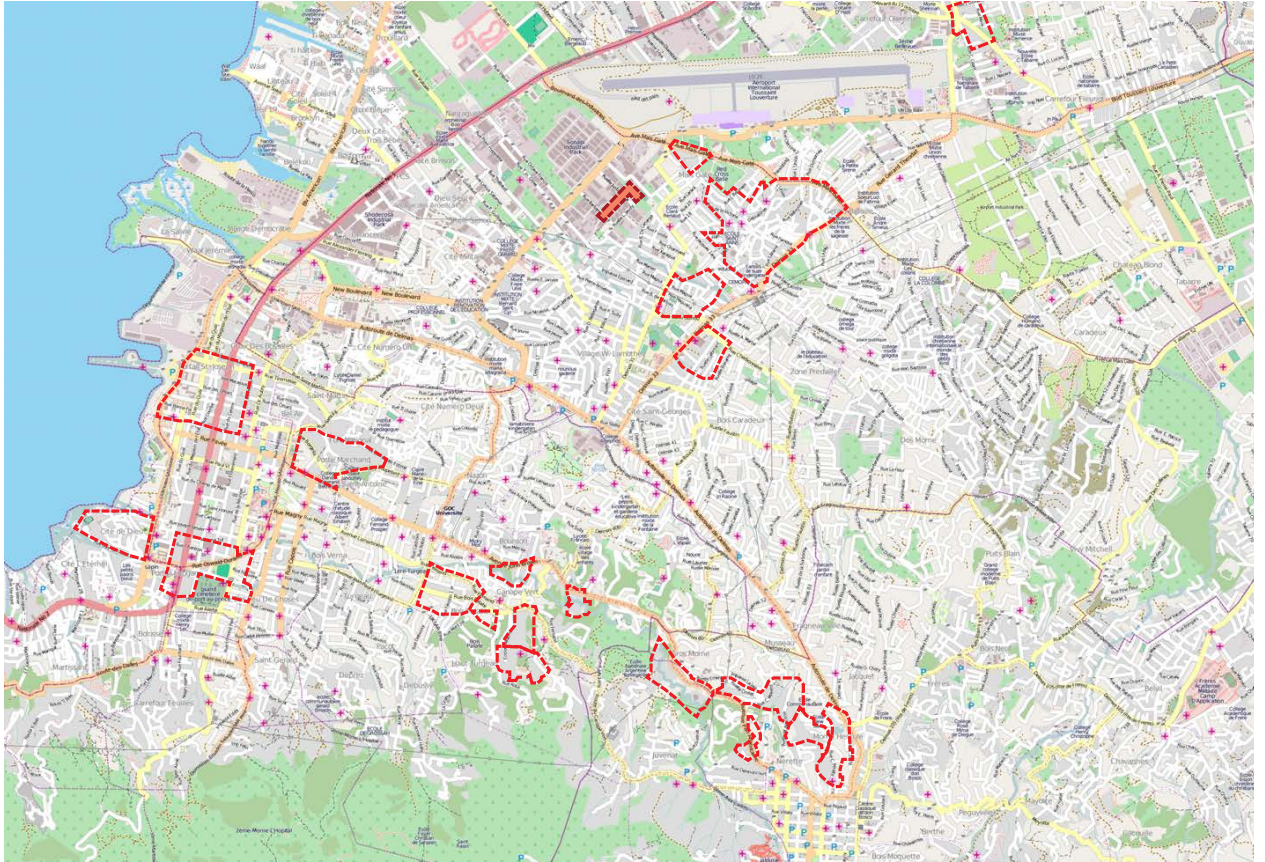
Maïs Gaté A and B

These two neighbourhoods are part of a larger quartier. They form a commercial front along a main road, providing access to the external economy. Settlement is dense, with residential buildings behind the commercial area, typically 1-2 stories high.

Basic and Social Infrastructure

The neighbourhoods can access medical services at CM Mais Gate, AMI, CHAPI, CHOSCAL, CPFO + MdM, Merlin, World Hope International, and have 30 water points.

MPTPC Damage Assessment
- 10192+ families (no data for Maïs Gaté A)
- 661 red houses, 1524 yellow houses, 3398 green houses.
- Displaced families in 1 camp: Maïs Gaté

Future Strategy/Recommendations

This neighbourhood presents opportunity for low densification. Mitigation should be undertaken to tackle the impact of the nearby drainage canals.
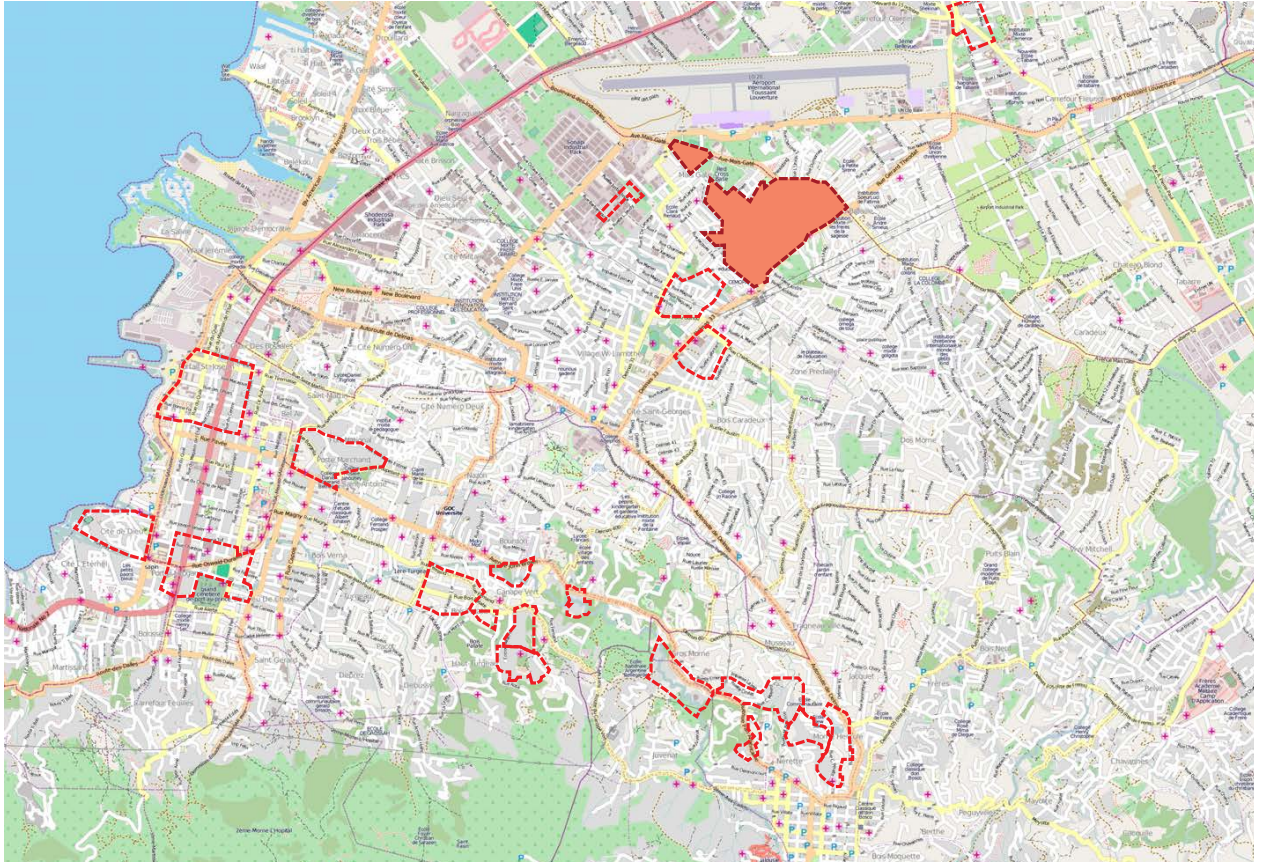
Poupelard & Rue Mandela (Number 7)

These low income neighbourhoods are sited on flat/sloping land, along the main road. This offers commercial activity as well as adjoining secondary road access. Buildings are typically 1-2 stories high.
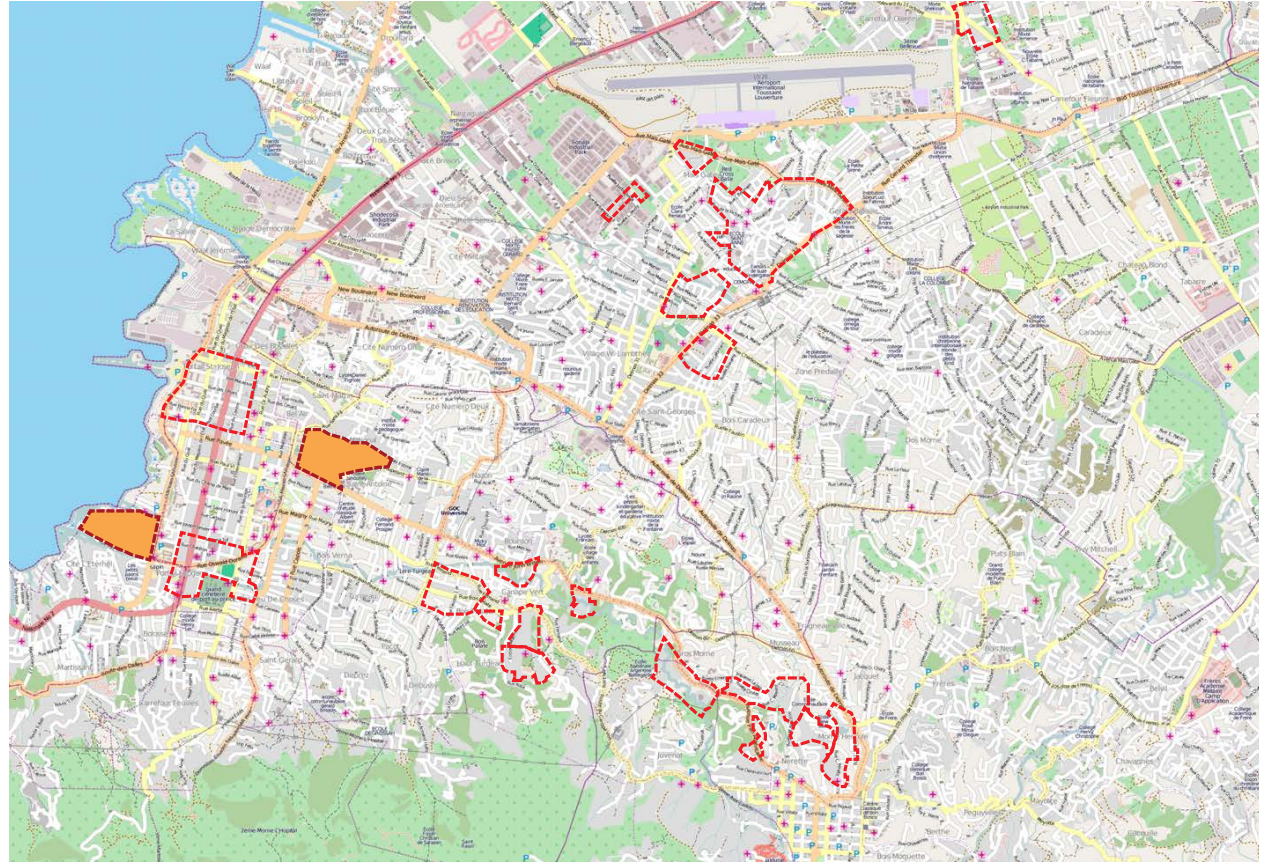
Basic and Social Infrastructure
• NO DATA AVAILABLE

MPTPC Damage Assessment
• NO DATA AVAILABLE

Future Strategy/Recommendations
Recommend densification is undertaken on a plot-by-plot basis.

Stadium Sylvio Cator/Champs de Mars

These commercial areas, located on flat lands, are well served by main roads. Buildings are between 1-3 stories high and a constructed on larger plots, with larger floor areas.
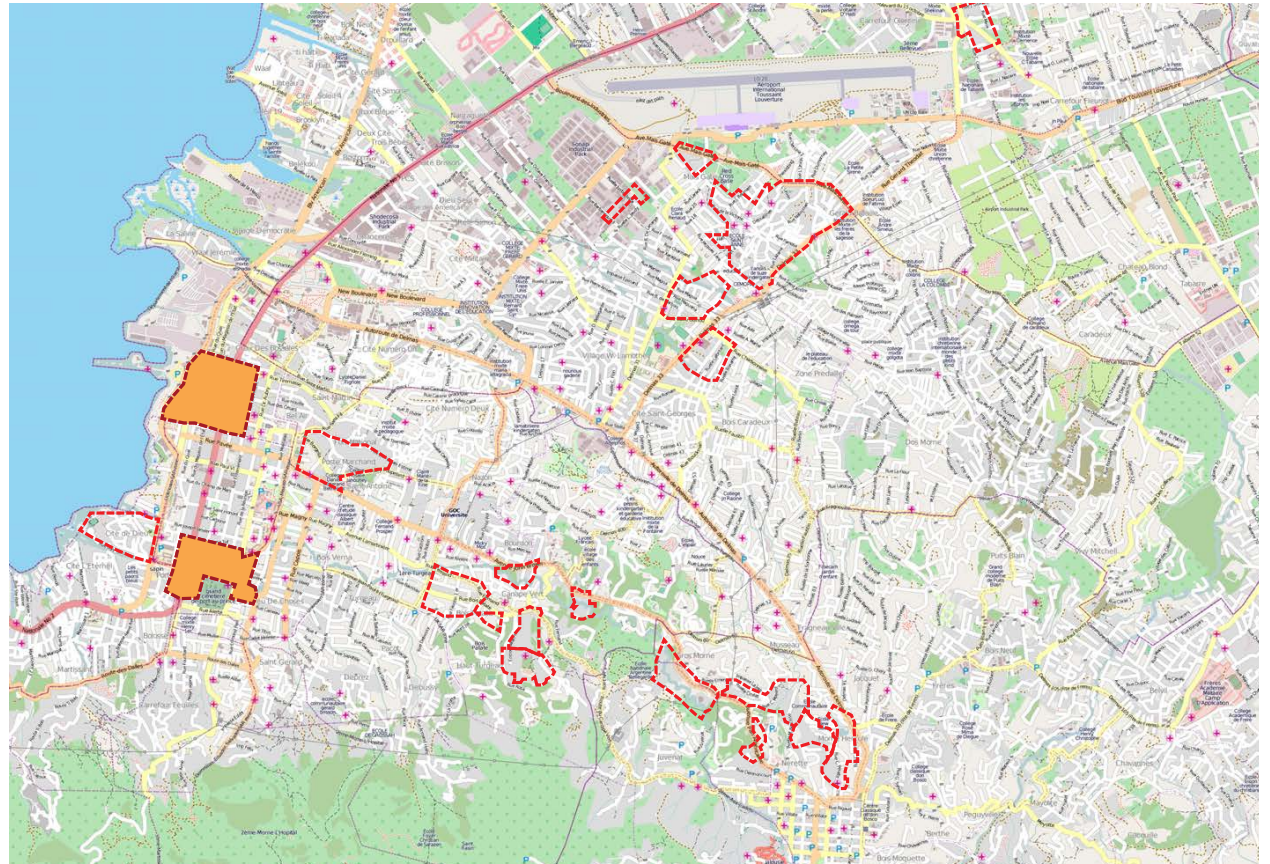
Basic and Social Infrastructure
• NO DATA AVAILABLE

MPTPC Damage Assessment
• NO DATA AVAILABLE

Future Strategy/Recommendations
Government-led urban planning/infrastructure interventions should be used to generate private investment in the area.
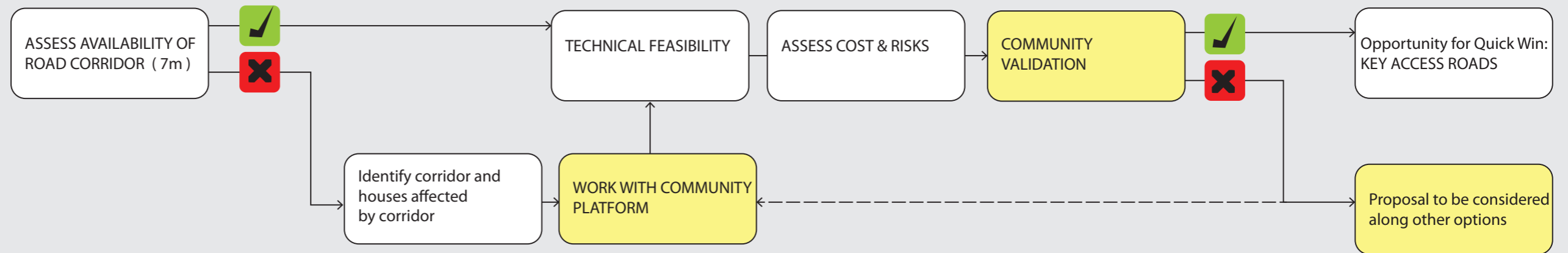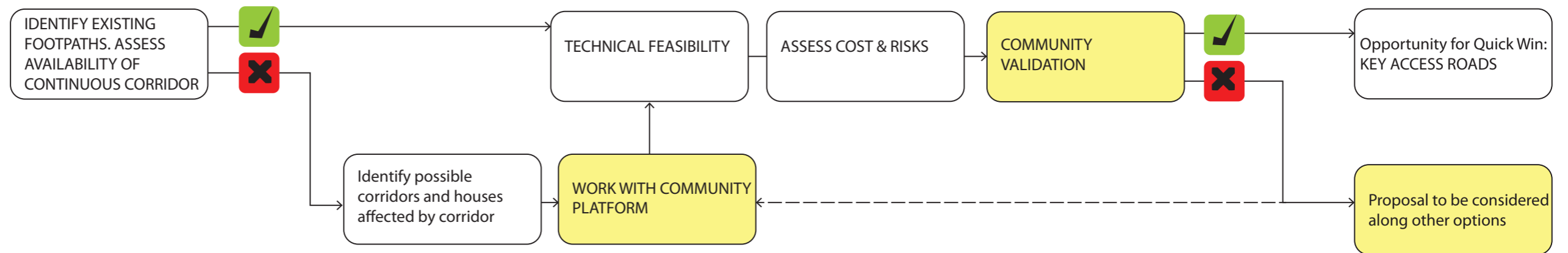
Appendix F

Examples of Infrastructure
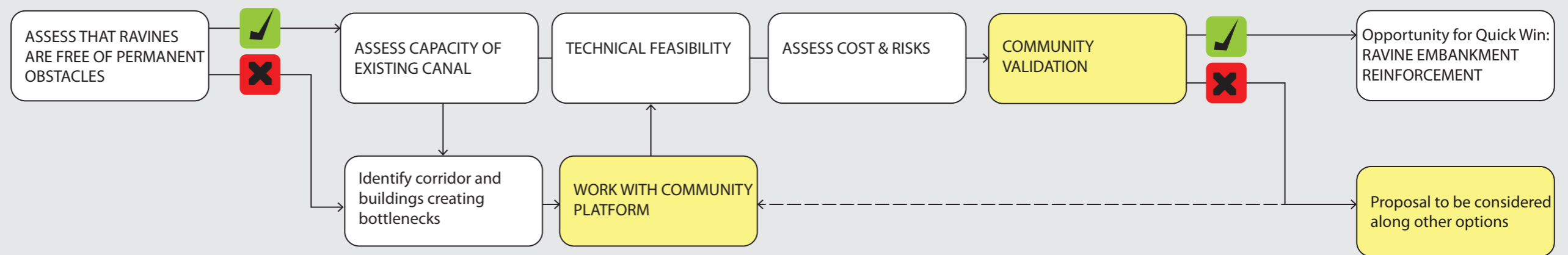Pathways

CONNECTIVITY INFRASTRUCTURE

ACCESS ROAD (C)

ASSESS AVAILABILITY OF ROAD CORRIDOR (7m)

✔

✖

Identify corridor and houses affected by corridor

WORK WITH COMMUNITY PLATFORM

TECHNICAL FEASIBILITY

ASSESS COST & RISKS

COMMUNITY VALIDATION

✔

✖

Opportunity for Quick Win: KEY ACCESS ROADS

Proposal to be considered along other options

PEDESTRIAN FOOTPATHS

IDENTIFY EXISTING FOOTPATHS. ASSESS AVAILABILITY OF CONTINUOUS CORRIDOR

✔

✖

Identify possible corridors and houses affected by corridor

WORK WITH COMMUNITY PLATFORM

TECHNICAL FEASIBILITY

ASSESS COST & RISKS

COMMUNITY VALIDATION

✔

✖

Opportunity for Quick Win: KEY ACCESS ROADS

Proposal to be considered along other options

HAZARD MITIGATION INFRASTRUCTURE

EMBANKMENT AND CANAL REINFORCEMENT (C)

ASSESS THAT RAVINES ARE FREE OF PERMANENT OBSTACLES

✓ → ASSESS CAPACITY OF EXISTING CANAL → TECHNICAL FEASIBILITY → ASSESS COST & RISKS → COMMUNITY VALIDATION ✓ → Opportunity for Quick Win: RAVINE EMBANKMENT REINFORCEMENT

✗

Identify corridor and buildings creating bottlenecks

WORK WITH COMMUNITY PLATFORM

✗ → Proposal to be considered along other options

RETAINING WALLS ALONG PRIMARY ROADS

IDENTIFY AREAS THAT REQUIRE RETAINING WALLS. IDENTIFY ADJACENT PROPERTIES

TECHNICAL FEASIBILITY → ASSESS COST & RISKS → COMMUNITY VALIDATION ✓ → Opportunity for Quick Win: KEY ACCESS ROADS

Identify properties at high risk

WORK WITH COMMUNITY PLATFORM

✗ → Proposal to be considered along other options

Appendix G

Owner Driven vs. Agency
Driven Approaches

	Owner-driven		Agency-driven	
	Housing	**Infrastructure**	**Housing**	**Infrastructure**
Assessment	Individual households or a community committee undertake damage assessment	The community identify their hazards and vulnerabilities through a participatory process	Damage assessment is completed by external actors	Hazard and vulnerability assessment is completed by external actors
Planning	The community decide who is eligible for housing assistance	The community identify and prioritise the actions required to address their hazards and vulnerabilities	Beneficiary selection criteria are defined by external actors	Infrastructure interventions are decided by external actors based on technical assessments
Design	Households decide how to use external assistance to best meet their housing needs	The community incorporate the physical components of the actions they have identified into a physical plan of their neighbourhood	House designs are defined by external actors	Infrastructure interventions are designed by external actors based on technical assessments
Implementation	Households receive training and undertake construction or employ local contractors	The community committee receive training and employ community members or local contractors to undertake construction	Houses are built by external actors – either through direct implementation or by employing contractors	Infrastructure is completed by external actors – either through direct implementation or by employing contractors
Monitoring	Households are responsible for monitoring the quality of construction (with support from external actors).	The community are responsible for monitoring the quality of construction (with support from external actors).	External actors are responsible for monitoring the quality of construction	External actors are responsible for monitoring the quality of construction

Table 6 Comparison between owner-driven and agency-driven approaches throughout the project lifecycle.

Appendix H

ASPIRE Assessment

What is ASPIRE?

Housing and infrastructure projects have a profound impact on the communities and societies that they serve. Arup International Development worked with Engineers against Poverty to develop ASPIRE; a software based tool for assessing the impact of housing and infrastructure projects on long-term sustainability and poverty reduction.

ASPIRE helps project teams to maximise the positive impacts of their work. It is designed to be operated and understood by project managers, planners and engineers who may not have specialist knowledge of sustainability and poverty reduction issues. By comprehensively addressing the three 'pillars' of sustainability, environment, society, economics and recognising institutions as a fourth critical dimension it provides a unique framework which allows the impacts and inter-relationships of projects to be considered collectively and holistically.

ASPIRE can be used at each phase of the project cycle and can serve as an ongoing monitoring and evaluation tool to assess project performance and to promote wider organisational learning. ASPIRE provides an analytical framework for those implementing infrastructure projects to understand and evaluate their impacts and contribution to sustainable development and long-term poverty reduction.
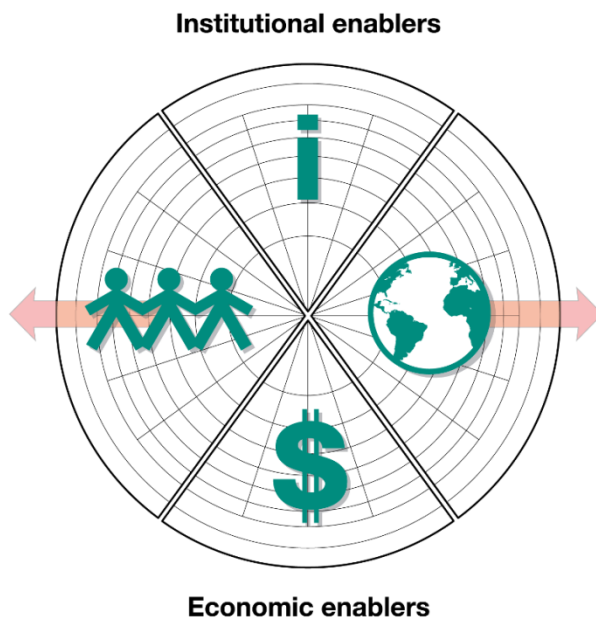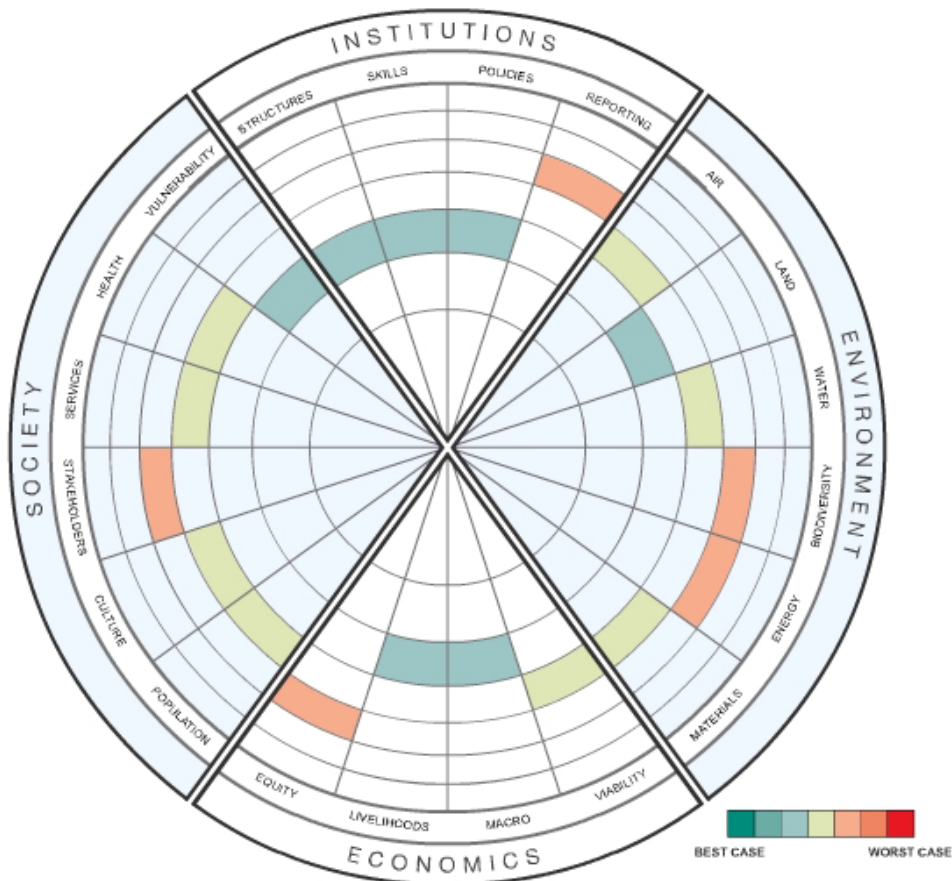
Figure 1: ASPIRE conceptual framework

Figure 2: ASPIRE assessment steps

Step 1: Define boundaries and objectives

Step 2: Identify stakeholders

Step 3: Review list of sub-themes

Step 4: Policy and regulatory framework

Step 5: Data collection

Step 6: Data entry

Step 7: Initial outputs

Step 8: Feedback to project team/stakeholders

Step 9: Review ASPIRE based on feedback

Step 10: Final outputs and reporting

ERROR! UNKNOWN SWITCH ARGUMENT.

Outcome of the preliminary ASPIRE assessment

Using project documentation and data collected during the inception mission a high-level preliminary assessment has been completed. See graphic output below.

Key questions arising out of the preliminary ASPIRE assessment are:

- How can information and knowledge be shared between project stakeholders and communities? What are the most appropriate channels of communication? What is the monitoring and evaluation strategy for the 16/6 programme? (**Reporting**)
- How can the project maintain or enhance the quality of the environment? Will an environmental assessment be undertaken? Will an environment risk management plan be developed? (**Biodiversity**)
- How can the housing and infrastructure minimise the consumption of energy? Can the project encourage the use of renewable energy resources? (**Energy**)
- How can the project ensure that benefits accrue equitably to all members of the community? Will the operation and maintenance costs of housing and infrastructure be affordable to families and communities in the long term? (**Equity**)
- How can the project identify and include all stakeholders? What is the community engagement process? Will complaints mechanisms be established? (**Stakeholders**)