SCOPING REPORT FOR THE BUMBUNA II HYDROPOWER PROJECT PHASE II RESETTLEMENT ACTION PLAN, SIERRA LEONE

Prepared For

Joule Africa

Report Prepared by

SRK Consulting (UK) Limited

UK6923

and

SRK Legal Entity:		SRK Consulting (UK) Limited
SRK Address:		5th Floor Churchill House 17 Churchill Way Cardiff, CF10 2HH Wales, United Kingdom.
Date:		July, 2017
Project Number:		UK6923
SRK Project Director:	Tony Rex	Corporate Consultant (Hydrogeology)
SRK Project Manager:	Cathryn MacCallum	Principal Consultant (Social)
CEMMATS Project Manager	Andrew Keili	Director
Client Legal Entity:		Joule Africa Limited
Client Address:		11th Floor, Medine Mews Chaussee Street Port Louis Mauritius

Table of Contents

List of Tables

List of Figures

List of Technical Appendices

SRK Consulting (UK) Limited
5th Floor Churchill House
17 Churchill Way
City and County of Cardiff
CF10 2HH, Wales
United Kingdom
E-mail: enquiries@srk.co.uk
URL: www.srk.co.uk
Tel: + 44 (0) 2920 348 150
Fax: + 44 (0) 2920 348 199

SCOPING REPORT FOR THE BUMBUNA II HYDROPOWER PROJECT INUNDATION AREA RESETTLEMENT ACTION PLAN, SIERRA LEONE

1 INTRODUCTION

SRK Consulting (UK) Ltd (SRK) and CEMMATS, a Sierra Leonean consultancy firm, have been commissioned by Joule Africa Limited (Joule) to prepare two Resettlement Action Plans (RAP) for the Bumbuna II Hydroelectric Project (the Project). A RAP to guide resettlement of households displaced, economically and/or physically by Phase I of the Project (the early works activity) and another to guide the resettlement of households displaced by Phase II of the Project.

This scoping report focusses on the settlements affected by Phase II. It draws on lessons learned to date during the ongoing preparation of the Phase I RAP together with additional information gathered from visiting the larger accessible settlements and some of the more remote smaller settlements potentially affected by Phase II.

The objectives of the scoping exercise were as follows:

- To reflect on Phase I and incorporate lessons learned into Phase II scoping;
- To gain a spatial understanding of the Project area;
- To meet with key stakeholders and initiate project planning and coordination;
- To determine the extent of physical and economic displacement; and
- To identify any additional work or studies required to complete the Phase II RAP.

1.1 Work Completed to Date

Various feasibility studies have been completed to date on the Project including a comprehensive Environmental Social and Health Impact Assessment (ESHIA) (ERM, September, 2016). The ESHIA has been developed in accordance with recognised international financing requirements; namely, the International Finance Corporation (IFC) Performance Standards, European Investment Bank (EIB) Environmental and Social Standards, African Development Bank (AfDB) Operational Safeguards and the World Bank EHS Guidelines.

A Resettlement Framework (RF) (ERM, October, 2016) has also been prepared as the basis for the development of the RAPs.

SRK and CEMMATS are drawing on these documents to inform a detailed data gathering and participatory consultation process to develop a RAP report for each Phase aligned with other management plans being prepared as a result of the ESHIA. In parallel to the RAP, stakeholder engagement has been planned and is being implemented, facilitating involvement of all those affected by the Project in the resettlement planning process.

Data collection and reporting is nearing completion for Phase 1 where after the data collection process for Phase II will commence following the refinement of the scope.

1.2 Project description

1.2.1 Overview

The Project comprises the Bumbuna II HEP which includes the Bumbuna Extension project, the Yiben Dam project and the construction of new transmission lines. Linked to these, a range of supporting ancillary facilities and activities will be required, including road upgrades, worker's camps, development of quarries, and the construction of a new, non-hazardous landfill waste management facility.

For the purposes of the RAP management and implementation, the Project has been split into two distinct components. Phase 1 comprises of the Bumbuna Extension, while Phase II, as detailed in this scoping report, includes all physical and economic displacement within the proposed Yiben Reservoir inundation area. This covers an area of approximately 116 km^2.

Baseline socio-economic surveys conducted by ERM in both the dry and wet seasons identified 44 settlements within the Yiben Reservoir inundation area, with an approximate population of 5,600. In addition to these physically impacted settlements, there are several larger settlements outside of the inundation area using the land for livelihood activities. These include Kondembaia, Yara, Benekoro and Diang Sokurela 1 and 2. The location of these settlements is included in Figure 3-1.

1.2.2 Proposed Project Schedule

Construction of Bumbuna II is expected to start in mid-2018 and will take approximately 4 years to complete. The commissioning of the Yiben dam is scheduled for mid-2020 and it is anticipated that it will take a further 2 years to fill the reservoir, before Bumbuna II becomes operational in 2022.

The development and implementation of the RAP will be cognisant of the proposed construction timelines in order to ensure affected households and livelihood activities are relocated and restored in a timely manner ensuring limited impact on both the affected people and the overall Project timelines.

2 OVERVIEW OF THE LEGAL FRAMEWORK AND GOVERNANCE STRUCTURES

2.1 Relevant Legislation

A comprehensive overview of relevant Sierra Leonean legislation, customs and Good International Industry Practice (GIIP) has been included in Appendix 1 of the RF. For the purposes of this scoping report, a comparison extracted from the RF of the relevant legislation and GIIP has been included for reference. The key additions to the requirements set out by Sierra Leonean legislation resulting from the application of international standards are as follows:

- International standards strongly prefer land-for-land compensation rather than cash compensation because this is more likely to lead to sustainable livelihoods after resettlement. Replacement land should be of equivalent or better quality to that which is lost. Assistance should be given for the costs of moving, loss of crops during relocation etc.
- International standards require all people who are displaced to be compensated and do not distinguish between local people and non-natives.
- International standards require a programme to restore livelihoods to at least pre-displacement levels.
- Resettlement plans must consider both physical and economic displacement.
- Resettlement plans should include provision for the land and housing needs of sons and daughters reaching the age of independent adulthood.
- The resettlement process should include the following surveys: (i) a full asset inventory survey, (ii) a market valuation survey and (iii) a full population census.
- The preferences of displaced and host settlements with regard to relocating in pre-existing settlements as well as their respective social and cultural institutions are to be respected.
- When transferring replacement assets as far as possible new assets should be in the names of wives as well as husbands.
- A Stakeholder Engagement Plan will be developed that includes consulting and involving displaced people in decisions throughout the project lifecycle. Consultation is to be conducted in a manner that is inclusive and appropriate for the audience, catering for the needs of vulnerable groups.
- Once completed, the RAPs will be summarised and disclosed in a form that is simple and accessible to convey key messages to affected people.
- Healthcare services to individuals deemed vulnerable during the resettlement process, such as pregnant women and children are to be provided to avoid impacts on their health. Resettled and host settlements will be given access to counselling and advice services.
- Consider gender aspects throughout the resettlement process including in participation, decision-making, compensation agreement/receipt and land rights.
- In consultation with affected people, evaluate whether it would be beneficial and useful to engage a monitoring or 'witness' body to assist in supervising the compensation process.
- The project should have a process for regular monitoring until resettlement is completed and for an independent external audit when resettlement and livelihood restoration is completed to confirm that the process is complete (or to identify further actions needed to ensure that the livelihood and standard of living of the people displaced is at least as good as prior to relocation.

Source: Bumbuna II ESHIA/Vol II/ Annex I

2.2 Governance Structures

During Phase I, the complexities of the governance structures have become apparent. To this end, as part of the scoping for Phase II, it is important to understand the governance relationships at a regional, district and chiefdom level, as these will impact on the development and implementation of the RAP.

A number of Acts have been passed over the past two decades on the setting up of governance structures and spelling out roles and responsibilities. These include the Chieftaincy Act, 2009 and the amended Local Government Act, 2017. The amended Act was passed to consolidate and amend the law on local government that was stipulated in the 2004 Local Government Act, provide for the decentralisation and devolution of functions, powers and services to local councils and for other related matters.

The Ministry of Local Government and Rural Development (MLGRD) was established in 2004. This ministry has responsibility for implementing decentralisation and other local governance reforms, which include specifying functions to be assigned to local councils, and coordination and implementation of the programme of devolution from central government to local councils.

The Ministry is represented by the Provincial Secretary who in turn is represented at the district level by a District Officer, based in the District administrative headquarter town. The position of District Officer, as the Ministry's principal representative in each District, is to enhance the Ministry's role, in particular the interface with traditional authorities (Chiefdom Councils) and co-ordination of non-devolved functions of other Ministries at District level.

The Local Councils Association of Sierra Leone (LoCASL) was also formed in July 2004. LoCASL adopted a new constitution in 2011, providing for national and regional executive structures. It has a permanent secretariat to support its membership and implement its strategic priorities. All 19 councils are members of LoCASL, each with voting representation on its General Assembly through the Mayor/ Chairperson, Deputy Mayor/Chairperson and two Councillors (at least one of whom must be female) and the Chief Administrator.

The District Officer and the Chief Administrator of the local District Council are the representatives of the State apparatus to ensure that the national legislative requirements detailed in Section 2.1 are adhered to.

The District Council has a major stake in all development programmes and collection of licenses and taxes within their localities. It reports to the MLGRD. This means that both the Council and the District Officer are also key stakeholders in the development of livelihood restoration plans and need to be considered throughout the process.

The District Officers are the MLGRDs interface with the Chiefdom Councils and the District Council supervises the performance of the Chiefdom Council.

Whereas both District Council and MLGRD staff are appointed by GoSL, Paramount Chiefs are elected for life. There is a hierarchical system of traditional authorities under the Paramount Chief. There is a Chiefdom Speaker who assists and deputizes when the Paramount Chief is absent from the Chiefdom. The Chiefdom is divided into sections comprising a number of villages. Each section is headed by a Section Chief and each village by a Town Chief.

2.3 Diang Chiefdom

Phase II of the Project is situated exclusively in Diang Chiefdom in Koinandugu District, in the Northern region of Sierra Leone. Diang is one of eleven chiefdoms in the District and one of the least populated Chiefdoms in the District. Its remoteness is one of its distinct characteristics. Diang's population amounts to just 7% of the District's population.

The District Officer and Council administrative headquarters for Koinadugu is Kabala. The Diang Chiefdom's administrative headquarters is Kondembaia, which is situated outside of the inundation area.

3 SCOPING METHODOLOGY

3.1 Desktop Review

3.1.1 Existing reports

A comprehensive desktop review of all available documentation and literature was undertaken prior to the scoping site visit. This included:

- The ESHIA and RF reports prepared by ERM Consultants in 2016;
- The Scoping Report for Bumbuna II Phase 1 prepared by SRK and CEMMATS in 2017;
- The Biodiversity Action Plan Scoping Report prepared by The Biodiversity Consultancy (TBC) in 2017; and
- The UN FAO 2015 Food Security and Vulnerability Analysis for Sierra Leone (FAO, 2015)

These documents provided the team with an understanding of the Project site, some of the socio-economic dynamics and potential challenges.

3.1.2 Remote sensing of the project area

Remote sensing and GIS data, particularly aerial imagery, is a key component to the planning and execution of a resettlement process. Prior to the scoping visit, SRK utilised existing aerial imagery, multispectral imagery and Light Detection and Ranging (LIDAR) data to establish a clear overview of the Project area, natural resources, infrastructure and the potentially affected settlements.

3.2 Lessons learned to date

Prior to the scoping visit SRK and CEMMATS carried out an internal review of Phase I to determine achievements to date, challenges faced and any recommendations for change in terms of approach and focus. This reflection was then incorporated into the planning of the scoping visit.

3.3 Scoping Visit

A team of six consultants from CEMMATS and SRK participated in a scoping visit between June 24th and 26th. The scoping was combined with meetings and workshops regarding the livelihood restoration planning for Phase I, to maximise time on site. The visit also drew on a previous visit to the inundation area enroute to meeting with four settlements affected by Phase I.

The main objectives were, drawing on lessons learned during Phase I, to fully understand the extent of physical and economic resettlement to clarify any issues identified from the desk top review. Settlements and villages visited were by 4WD vehicles where possible, or by foot, trekking through cultivated areas and native forests. The areas visited are illustrated in Figure 3-1.

To enable effective use of time and to avoid duplication of effort the team sub-divided the inundation area into parts related to size of settlements and accessibility; different consultants then focussed on different aspects. Physical displacement and economic displacement were also separated out, with agriculture and artisanal mining being focussed on separately, where appropriate. The scoping study focussed on the following distinct areas:

- Sandia and surrounding villages: The settlements near Sandia, between the edge of the inundation area and the proposed dam construction, had been visited during a previous visit involving an 18 km trek to the settlements affected by the Phase I early works in the Yiben area. Consequently, this zone was not included in this visit.
- Badala and Yisaia: Badala and Yisaia, two of the largest settlements affected by the Project, were accessible by 4WD vehicle. The settlements to the south of Yisaia were visited on foot, involving a 13 km trek through cultivated land and native forest.
- Koikoi Town and surrounding villages: Access to Koikoi Town was via 4WD vehicle and then by foot involving an 8 km trek through a series of artisanal mining sites and temporary settlements.
- Diang Sokurella: The settlements between Kondembaia and Diang Sokurella 1 were accessible by 4WD vehicle and visited accordingly.
- The settlements of Bafala and Kabrutown were not safely accessible by vehicle or foot during the visit because of the rains, so were not able to be visited, reducing the scoping to three days.

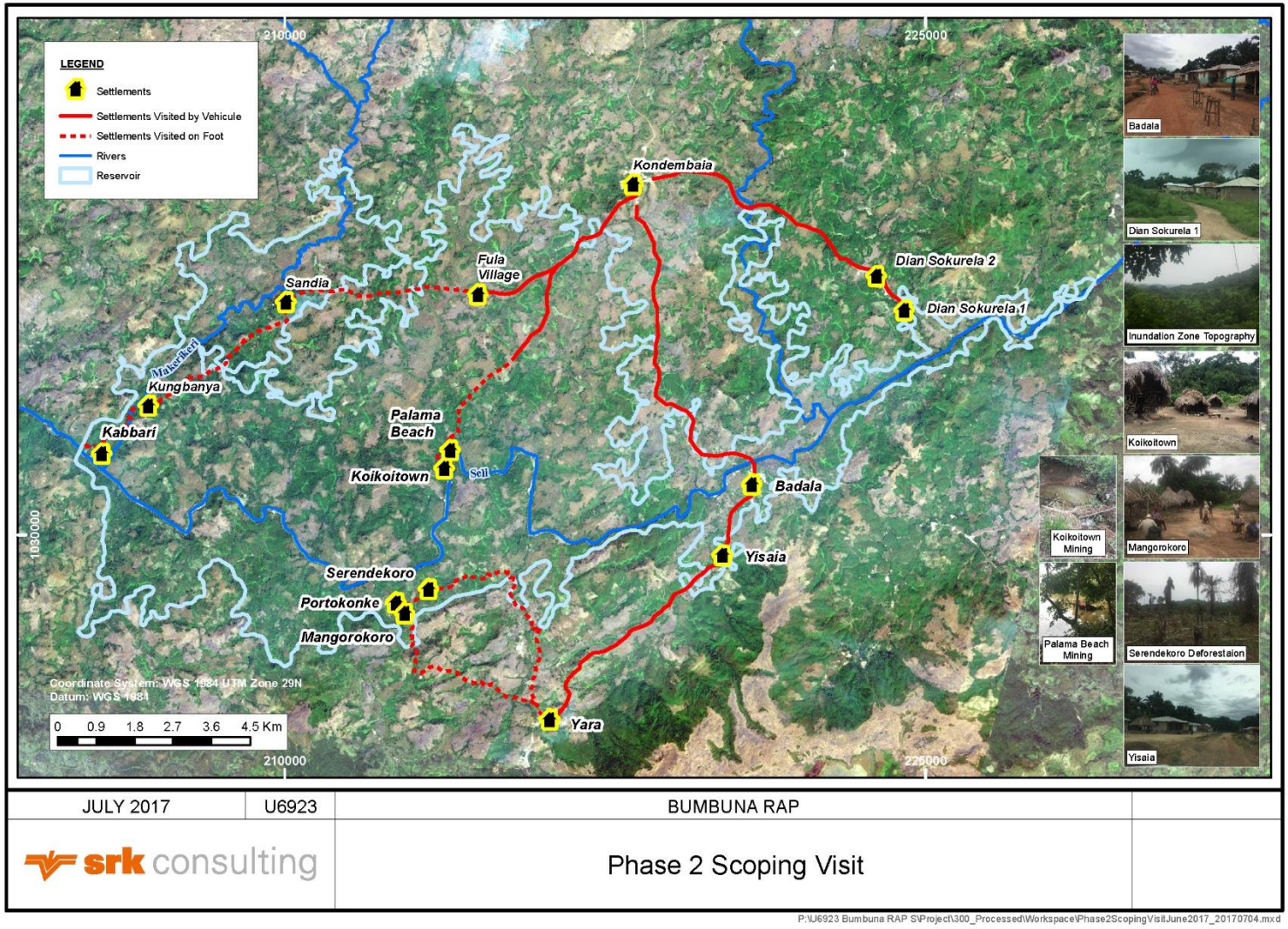


Figure 3-1: Areas visited during Phase II Scoping

4 STAKEHOLDER ENGAGEMENT

4.1 Overview

The scoping visit included relatively limited stakeholder engagement as it was focused predominantly on assessing the extent of physical and economic displacement within the inundation area. While key stakeholders were informed of the process, it was also important that expectations were managed. For this reason, the following stakeholders were engaged during the scoping visit:

- Paramount Chief of Diang;
- Respective Section Chiefs;
- Town/ Village Chiefs of settlements visited during scoping visit;
- Some inhabitants in the settlements visited.

4.2 Engagement Approach

Transparent and inclusive stakeholder engagement forms the cornerstone of the RAP approach adopted by the Project team. Throughout the scoping visit both SRK and CEMMATS have continued to deliver a consistent message to all stakeholders, from affected settlements to district government representatives, and Paramount Chiefs. This consistency will assist with minimizing confusion among stakeholders and also manage the occurrence of unrealistic expectations.

Some of the key areas where consistency needs to be continuously demonstrated includes project timing, eligibility and entitlements, recognition of community and government leadership and project team members. This approach was adopted during the initial stages of Phase I and will continue throughout the Phase II process.

4.3 Paramount Chiefs

The Paramount Chief, as the lawful custodian of land is a key stakeholder in the RAP process, As Phase II of the Project is located solely in the Diang Chiefdom, the Project team observed local protocol and had a meeting with the Paramount Chief and his Council prior to visiting or engaging with other stakeholders in the Chiefdom. The meetings were used to discuss the planned visit as well as to discuss logistical arrangements for the planned Phase I livelihood restoration planning workshops as described in Section 3.3. This is significant for the Phase II scoping as these discussions sought to build a positive and constructive relationship with the Paramount Chief and his council and to establish a good precedent for future land negotiations within the Diang chiefdom. In summary the meetings purpose was to:

- Inform the Paramount Chief and Chiefdom Councillors about the planned scoping visit to the potentially affected area.
- Discuss and seek agreement on the Phase I relocation site, situated near Kamayeke in the Diang Chiefdom.
- To discuss land acquisition procedures within the Diang chiefdom;

4.4 Community perceptions and expectations

During the scoping visit several affected settlements within the inundation zone were visited (refer to Section 6.1 for a list of settlements visited). While the team was careful not to raise any expectations, the affected people and local leadership are seemingly well aware of the Project and the potential impacts on them.

Community feedback and response was dominated by a perception that their livelihoods and lives would be negatively impacted. For example, in Diang Sokurella 2, the team was told of their partial relocation after the civil war and are fearful of further relocation due to the Project. In Yara, the leaders voiced concerns regarding restricted access to land for cultivation, drawing on the demarcation of the Lake Sonfon Conservation Area and that this Project would create further restrictions.

Some of the key issues raised during community engagements are summarised in Table 4-1

Table 4-1: Community feedback during the scoping visit

Host Stakeholder	Date	Location	Key points raised
PC and council, District Officer(DO)	23/6/17	Kondembaia	PC raised the point that all relocation and resultant development must occur within the Diang chieftainship. The PC also requested that the DO was present at all future meetings The notion of one large relocation site was raised by the PC.
Village Chief	24/6/17	Badala	No key points, the team was welcomed and given permission to continue with the scoping visit.
Village Chief	24/06/17	Yisaia	No key points, the team was welcomed and given permission to continue with the scoping visit.
Village Chief	24/06/17	Yara	Concern that they were now going to be caught between two projects (the Lake Sonfon Solar project and the Bumbuna II Project) resulting in reduced agricultural land.
Village Chief	24/06/17	Portokonkekoro	Some concerns were raised over the loss of agricultural land.
Inhabitants	25/06/17	Koikoi town	Some concerns were raised over the impact on artisanal mining which is the primary livelihood activity in the area.
Village Chief	25/06/17	Diang Sokurella 1	Concern regarding further relocation following displacement during the civil war; Concern over the loss of agricultural land and the access to artisanal mining sites; Potential that only a small number of households will be affected.

4.5 Continued engagement and decision making

Similarly, to Phase I, the community leadership and decision-making structures are male dominated with women having little communal decision-making power and authority. Consequently, the concerns of male heads of households, as well as those in leadership positions, tend to dominate community discussions and decisions.

As a consequence, Phase II engagement with stakeholders will endeavour to include and engage women and other vulnerable groups in the exchanges and sharing of information. Separate consultations with women and youth have been arranged during the Phase I RAP development and this will be continued during Phase II.

While the affected settlements revealed that they are eager for ongoing information dissemination and inclusion in all RAP activities and decisions, they are also prepared to support certain decisions made by the respective chiefs on their behalf. Reportedly, ultimately, all decisions related to the settlements reside with the Paramount Chief.

During Phase I, The Diang Paramount Chief has made visible and active efforts to include the views and ideas of those in traditional government and community leadership when conveying his decisions for the project affected settlements. During Phase II this relationship will be nurtured and built on to enable a positive and constructive dialogue to be maintained with the Paramount Chief.

5 SCOPING VISIT FINDINGS

5.1 Extent of Physical Displacement

A key objective of the Phase II scoping was to assess the potential extent of physical displacement within the inundation area and to verify existing information prior to the commencement of the RAP process.

Social assessments conducted, as a component of the ESHIA, between April and July 2016 estimated there to be 44 settlements totalling 1,065 households within the inundation area, however, the scoping assessment revealed some discrepancies.

The key objectives of the physical displacement assessment were:

- to verify the type of settlement (temporary or permanent);
- to verify the size of settlements;
- to assess the type of housing (including materials and construction methodologies); and
- to determine the accessibility to various settlements.

According to the RF, and verified during the scoping visit, in addition to the settlements that will be physically displaced there are four large settlements situated on the periphery of the inundation area that will be, in part, economically displaced. These settlements are also engaged in wet season agriculture and food production as well as dry season artisanal mining.

The settlements visited during the scoping assessment included settlements within the inundation area and settlements outside the inundation area that would be potentially affected by economic displacement. These are illustrated in Figure 3-1 and summarised below:

- Sandia through Kuwubanya to Sawule;
- Kondembaia through Palama Beach to Koikoi Town on the right bank of the inundation area;
- Kondembaia to Badala through Yisaia to Yara and Portokonkekoro on the East Bank; and
- Kondembaia to Diang Sokurella 1 and 2 on the far northern reaches of the inundation area.

The larger settlements that will be potentially affected by economic displacement are illustrated in Figure 5-5: Major settlements affected by economic displacement.

The type of impact and size of the respective settlements visited is summarised in Table 5-1 below.

Table 5-1: Settlements visited during the scoping site visit

Name of Settlement	Estimated No. of Households	Type of Impact
Badala	210	Physical displacement
Yisaia	96	Partial physical and economic displacement
Kondembaia	1 000 +	Partial economic displacement
Diang Sokurella 1	400	Partial physical and economic displacement
Diang Sokurella 2	140	Partial economic displacement
Yara	1 000 +	Partial economic displacement
Serendekoro	1	Physical and economic displacement
Portokonke	10	Physical and economic displacement
Mangorokoro	6	Physical and economic displacement
Koikoitown	5	Physical and economic displacement
Sandia	20	Physical and economic displacement
Kungbanya	10	Physical and economic displacement
Kabbari	5	Physical and economic displacement

Following the scoping visit to these settlements, initial estimates reveal that some of the assessments in the RF relating to the size of affected settlements is not accurate. Several of the settlements visited during the scoping visit are significantly smaller than reported, particularly villages such as Koikoitown, which appear to be seasonal settlements.

Comprehensive data on all the affected settlements will be gathered during the census and asset inventory process.

5.2 Settlement Structures

Structures within the inundation area are predominantly comprised of rural housing constructed using traditional methods of mud, wood and thatching. Larger settlements, such as Badala, Yisaia and Diang Sokurella, consist of more modern structures utilizing mud bricks, mortar and corrugated iron roof sheeting. Examples of both style are shown in Figure 5-1.

A comprehensive assessment of all affected structures will be completed during the asset inventory process.

Figure 5-1: Housing in the inundation area

5.3 Temporary/seasonal settlements

During the scoping assessment, it was apparent that there are numerous temporary settlements within the inundation area. Some of these are single structures utilized during planting and harvesting periods, while others are larger villages used by seasonal artisanal miners and loggers. Some of these structures are illustrated in Figure 5-2.

Figure 5-2: Temporary or abandoned seasonal settlements

The relocation of these villages and structures will be managed through the economic resettlement aspect of the RAP; however, it should be noted that several of these were recorded as permanent, inhabited settlements within the RF which is considered misleading.

5.4 Local infrastructure

The larger towns have organised and carefully laid out community structures, such as schools, mosques, markets and associated infrastructure. The buildings are mostly made of mud-brick coated with a cement or mud render and roofed with metal. All of these towns are accessible by 10 - 15m wide lateritic road.

While social infrastructure is limited within the inundation area, there are several villages that contain some infrastructure that will have to be relocated. This includes schools, mosques, churches, community hand-dug wells/ bore holes, and markets (see Figure 5-3).

This infrastructure is predominantly located in the larger towns such as Badala, Diang Sokerella and Yisaia. The smaller settlements visited had very little social or local infrastructure.

Figure 5-3: Market and community borehole, Badala

5.5 Spatial patterns within the inundation area

During the scoping visit, it became apparent that the distribution and spatial pattern of settlements within the inundation area is closely related to both topographical features, but, more importantly, with links to larger settlements.

Typically, a small number of households have migrated from larger settlements such as Yara, Badala and Kondembaia to more favorable locations for farming, mining and logging activities. This has resulted in numerous small 'satellite' villages throughout the area.

This is an important feature as these smaller settlements maintain close social ties with the larger settlements, from family members to social services such as schools and clinics. These larger settlements, outside of the inundation area, will potentially be options for host settlements.

5.6 Access to potentially affected settlements

There is sandy or graded track access to the larger settlements in the Project affected area, many of which are not accessible during the rainy season. A large number of the settlements are only accessible by footpaths and locally constructed bridges over the rivers, as illustrated in Figure 5-4

West of the Seli River, the road leads to and ends at Sandia, making access to much of the inundation area difficult. The branch road to Koi koi town and Palama beach was blocked by a fallen tree but there was evidence of vehicular access as far as the river.

On the East bank of the Seli, Portokonkekoro and the satellite villages were visited. Access was difficult with very narrow paths across hilly terrain interspersed with river crossings using locally constructed bridges and in some cases tree trunks that traversed the river.

Figure 5-4: Access routes to remote settlements

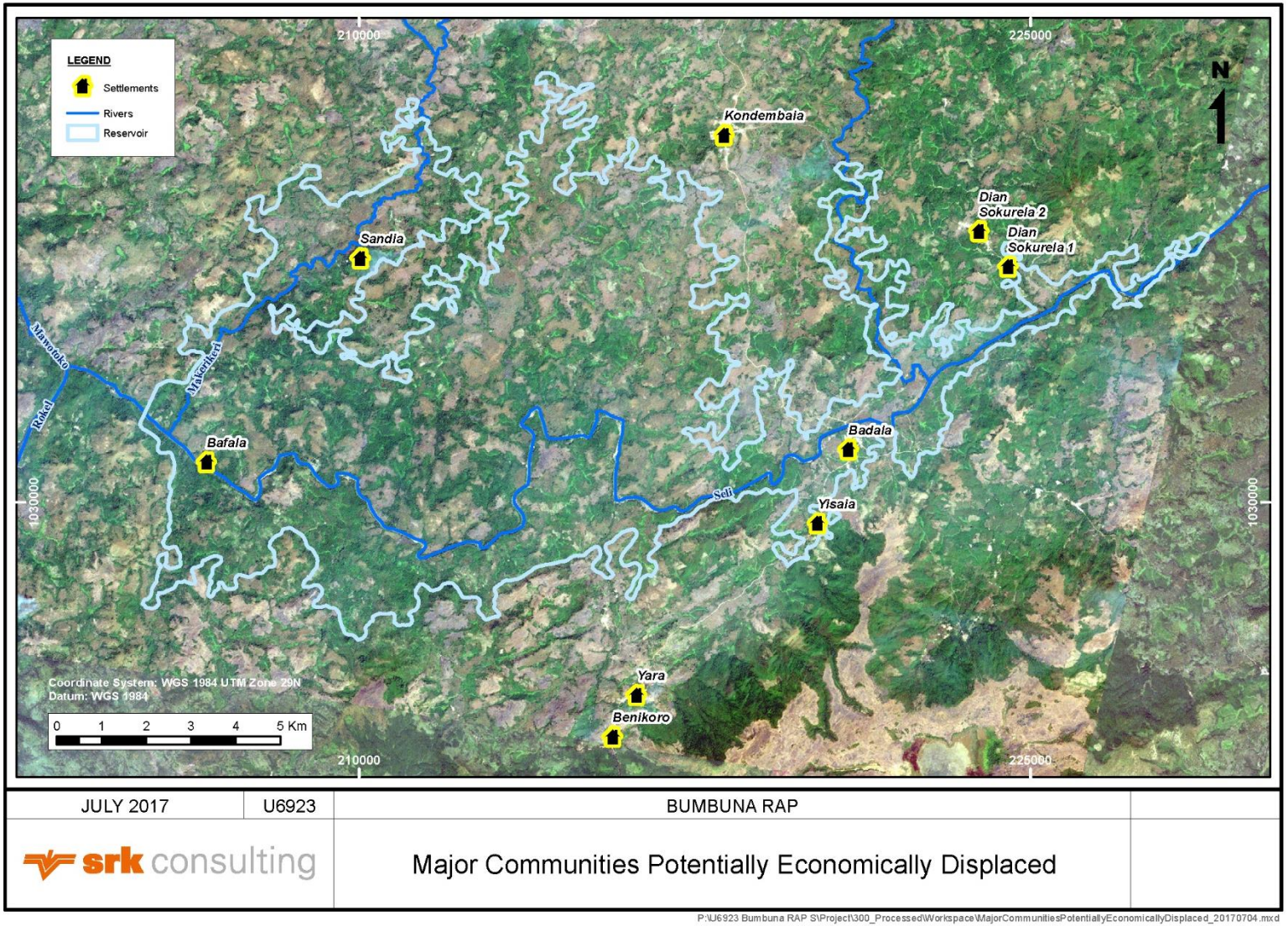


Figure 5-5: Major settlements affected by economic displacement

5.7 Livelihoods and land use

Further to the recent ecosystems services assessment of the early works area for the Phase I RAP (SRK 2017), the importance of land access in sustaining livelihoods was apparent. This was also reflected during the scoping of the inundation area for the Phase II RAP.

Agriculture is a mix of shifting cultivation on the slopes, with between 7 and 11 years of fallow time and use of the flood plains and inland valley swamps. Land use, identified through remote sensing across the inundation area illustrated in Figure 5-7, suggested a high level of deforestation. The map illustrates the land used for economic purposes near to the major settlements in the inundation area and also land used by communities such as Kondembaia and Yara, which are situated outside of the inundation area. During the scoping visit, it was apparent that land was used for both cultivation and logging purposes.

Agriculture is seasonal and subsistence in nature. Slash and burn practices are utilised for the growing of crops such as rice, plantain, cassava, yam, and ground nuts. Livestock production is predominantly free-ranging over the Project area; most households have poultry and small ruminants such as goats and sheep. There was mention of the pastoralist Fulani tribes and their cattle ranging freely, but they were not evident during the scoping visit.

During the scoping visit through the different parts of the inundation area, cultivation of multiple crops was the most evident use of land, as illustrated in Figure 5-6. This is backed up by a Comprehensive Food Security and Vulnerability Analysis carried out in 2015 by FAO (UNFAO 2015) which defines the Diang Chiefdom as having one of the lowest levels of food insecurity in the country, with less than 1% of the population defining access to land for cultivation as an issue.

Figure 5-6: Shifting cultivation and mixed cropping

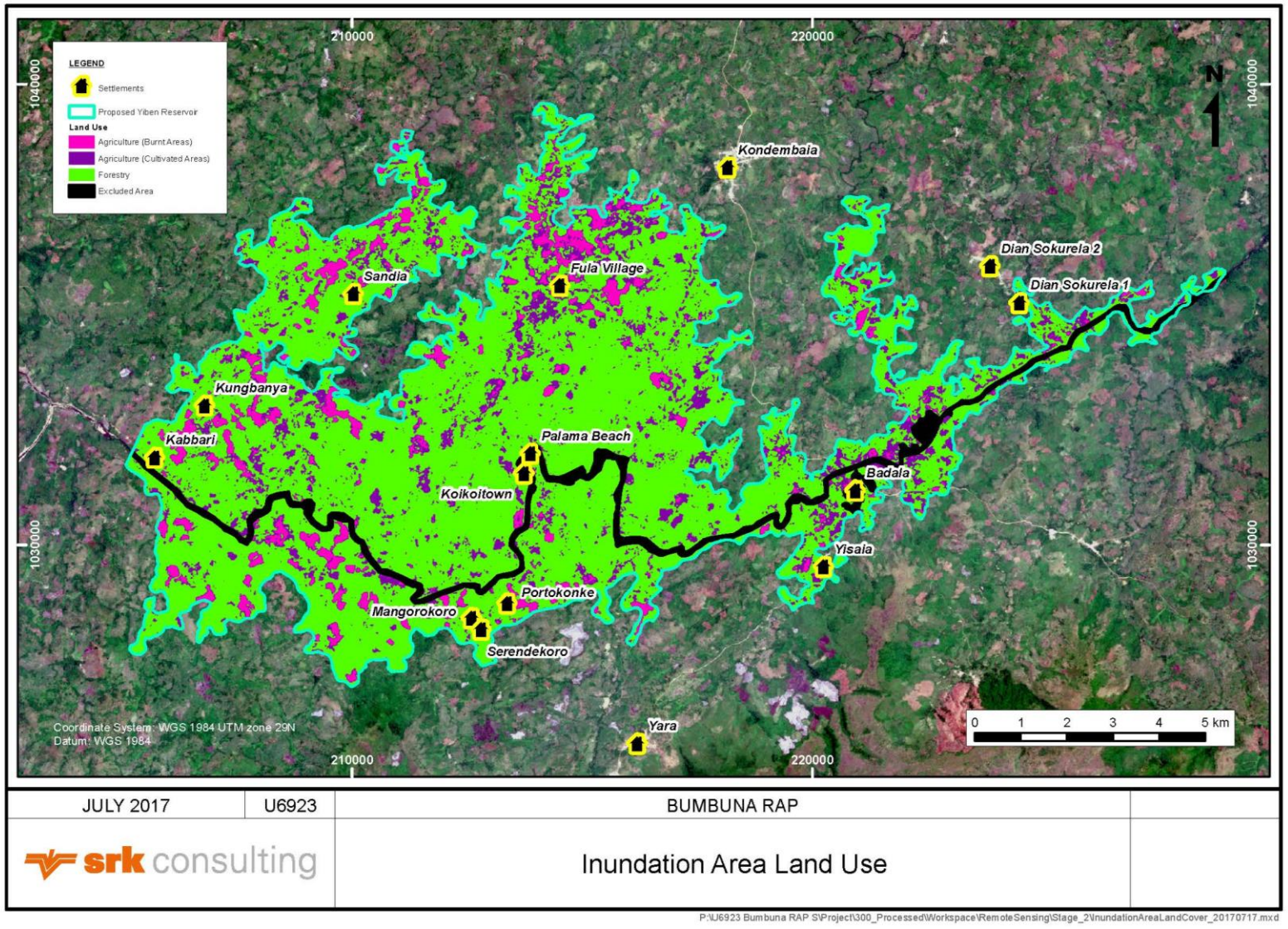


Figure 5-7: Remote sensing of land use in the inundation area

5.8 Artisanal mining activity

During the Phase I RAP development, the importance of Artisanal Mining and small scale (ASM) activity to the local economy has been acknowledged as an important yet unaffected livelihood activity. In Phase II, ASM of gold in the inundation area is regarded as a primary livelihood activity during the dry season which involves the whole community; men, women, and youth. The visit took place during the rainy season and, as a consequence, ASM activity was limited and not widely visible, making it impossible to ascertain the full extent or scope of ASM activity in the area (see Figure 5-8 and Figure 5-9).

According to discussions with guides on the two treks in the inundation area, all of the settlements depend on ASM for financial income, with agriculture providing access to food. Permissions appear to be granted by the District authorities and the Paramount Chief. This implies that not all ASM activity in the area is illicit, as previously assumed. There was also evidence of small scale mining operations that were reportedly run by Chinese and or Guinean miners.

Figure 5-8: ASM pit near Koikoi town in 2016 and 2017

Figure 5-9: Dredge in the Seli River near to Koi koi town

A number of abandoned settlements visited near Koikoitown and Portokonke were reportedly seasonal mining settlements with populations exceeding 200 inhabitants in the dry season, when mining takes place. Reportedly, inhabitants include migrants from other parts of Sierra Leone as well as from neighbouring countries in the region.

A greater understanding of the ASM activity in the inundation area is required to effectively assess the extent of economic displacement and to develop appropriate and suitable livelihood restoration strategy for sector.

6 POTENTIAL CHALLENGES, CONSTRAINTS

6.1 Politics and Governance

6.1.1 National elections

The national elections are planned for March, 2018 and voter registration was completed in May 2017. The elections will involve selection of Presidential, Parliamentary, Local Councillors and District Chairmen and Mayors, all for a five-year term. Election campaigning commences three months before the election date, January 2018. Phase 1 of the RAP implementation is expected to commence in December 2017. Therefore, maintenance of independence and neutrality by the project throughout the election process is important.in order to avoid use of the RAP process for political gain during campaigning

6.1.2 Local governance structures

Appropriate engagement with the multi layers of traditional governance and state administration will endeavour to consider all concerned parties throughout the RAP development process. This will prevent any potential delays resulting from required protocols not being adhered to.

6.2 Logistics and Access

6.2.1 Access to project area and settlements

Access to some of the more isolated areas of the inundation area during the field survey process will require detailed planning and extended periods of time. The dissemination of information throughout the Project area will also be a challenge.

As a consequence, access challenges may result in additional time being required for the field surveys and stakeholder engagement process.

6.3 Replacement land for livelihoods

Identifying suitable replacement land for agricultural purposes and replacement sites or suitable alternatives to artisanal mining will be a major challenge moving forwards.

The riparian habitat of the Seli and Makerikeri rivers and watershed currently sustain the majority of the livelihood activities of all of the potentially affected settlements. The practice of shifting cultivation is not sustainable and will become more difficult with reduced availability of land. Furthermore, most of the ASM is alluvial and dependent on the rivers in the inundation area.

The cumulative result is that livelihood restoration will require additional specialist studies regarding improving land capability and improvement as well as alternative sites for ASM activity.

7 RECOMMENDATIONS AND PROPOSED AMENDMENTS TO SCOPE

Further to the scoping of the project through desk top review of available data and the visit to the Project affected area, SRK and CEMMATS make the following recommendations and associated amendments to the scope of work associated with the RAP.

7.1 Additional studies

7.1.1 Artisanal Mining

Artisanal mining activity in the inundation area is extensive and undertaken by inhabitants from all of the settlements in and on the periphery. According to discussions with village and section chiefs as well as guides provided by them, there is also a migrant population who reside in the area on a seasonal basis to undertake ASM activity.

Understanding of the complexity and diversity of this livelihood strategy is essential in the determination of degree of economic displacement and potential livelihood restoration strategy where applicable. Consequently, it is recommended that SRK and CEMMATS undertake an additional study to:

- determine the scale and practice of ASM activity along the Rokel and Seli rivers;
- understand the legal and local governance frameworks in place regulating ASM activity;
- identify potentially suitable alternative sites to relocate legitimate ASM activity; and
- identify potential suitable alternative livelihoods for those engaged in illegitimate ASM activity.

7.1.2 Agricultural land capability and improvement

The inundation area presents a riparian habitat and fertile alluvial basin upon which all of the Project affected settlements depend. Loss of access to this land will increase shifting cultivation and associated environmental degradation.

Consequently, it is proposed that a specialist study is undertaken to assess potential production capability of current fallow land and lowland swamp areas outside of the inundation area that could be improved to reduce pressure on land use for food and cash crop production.

7.2 Zoning of the inundation area

Following the scoping assessment, it is recommended that the inundation area, due to the extent, lack of accessibility, and social ‘groupings’ of villages, is split into four zones. This will not only enable more efficient logistical planning and scheduling, but also assist the team in identifying suitable host settlements.

The recommendation is for the inundation area to be sectioned into four zones; namely, a Northern, Southern, Eastern, and Western Zone. These zones have been demarcated based on the following criteria:

- natural topographical boundaries such as the Seli River;
- proximity and linkages of certain larger towns and villages such as Badala, Kondembaia, Sandia, Yiben and Yara;
- strategic points from a logistical perspective to assist the survey team during the census and asset inventory process.

Table 7-1 and Figure 7-1 provide an overview of the recommended zones.

Table 7-1: Proposed zones of the inundation area

Zone	Primary Town/Villages	Topographical Features	Potential Host Settlements
Northern	Kondembaia	Southern boundary is the Seli River	Kondembaia
Southern	Yara	Northern boundary is the Seli River	Yara, Yiben
Eastern	Badala, Yisaia, Diang Sokurella	Reaches to the Eastern extent of the inundation area	Diang Sokurella, Yara
Western	Sandia	Reaches to the Western extent of the inundation area	Yiben, Kondembaia

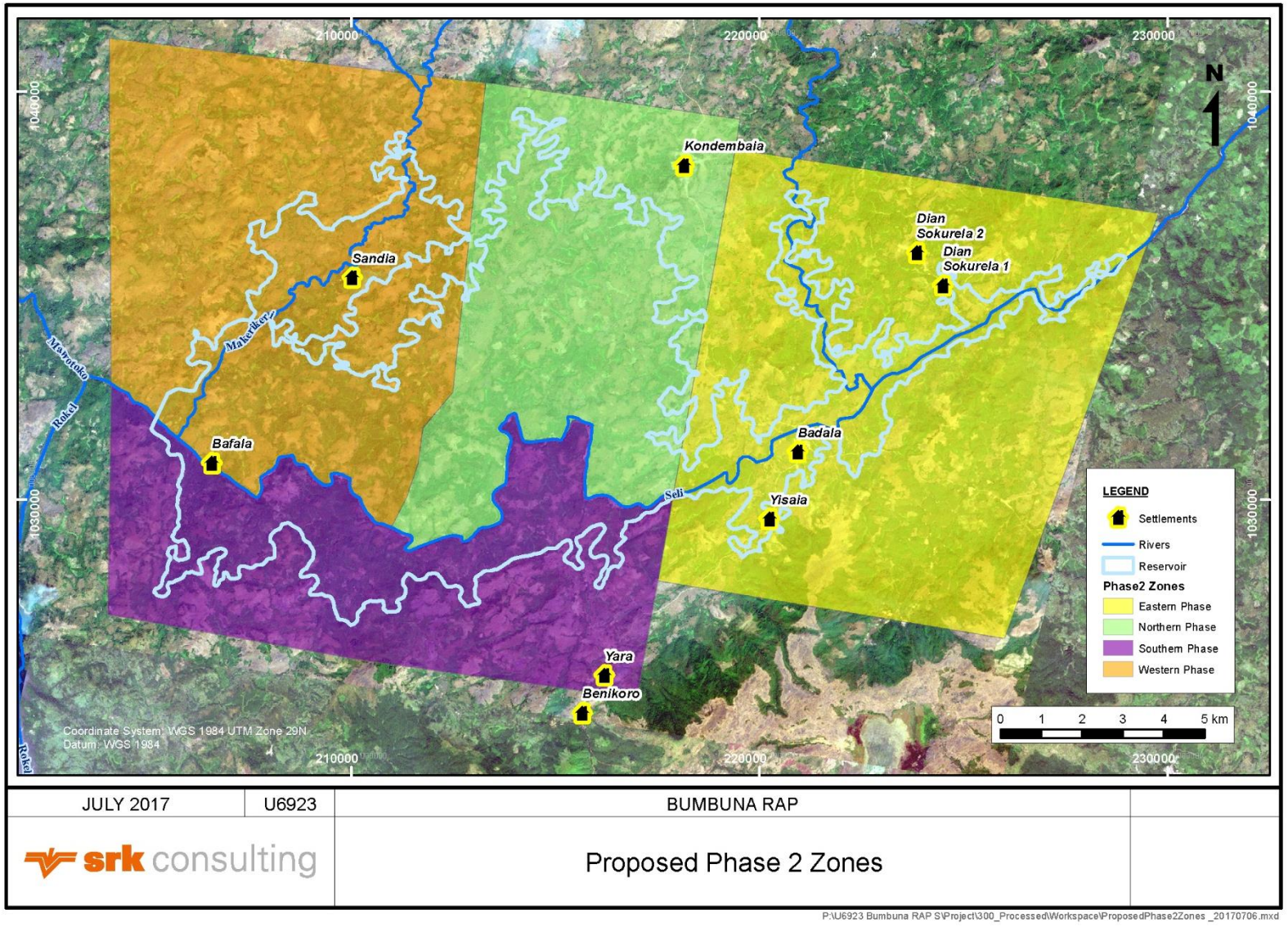


Figure 7-1: Proposed zoning of inundation area

7.2.1 Extending the project timeline

Due to the difficulty in accessing many areas of the inundation area, it is recommended that the overall Phase II timeline is extended. This is predominantly to accommodate the extended time it will take to complete the census and asset inventory process.

The survey will commence at the end of the rainy season which may affect accessibility to some parts of the inundation area.

It was originally planned to complete the survey in 6 weeks; however, it is now anticipated that approximately 12 weeks will be required.

In addition to the time required to complete the survey process, additional time may also be required to identify, negotiate and agree on suitable replacement sites and/or host settlements. It is anticipated that there will be several host settlements requiring extensive engagement.

A revised Phase II schedule has been developed based on the findings of the scoping site visit and the current Project progression; this is detailed in Appendix B.

7.3 Revised budget

The budget has been reviewed and amended based on the recommendations detailed in this section, what has actually happened to date and the revised scope of work. A summary of the revised budget is presented in Table 7-2, the full revised budget is included in Appendix A.

Table 7-2: Budget amendments for Phase II

PROJECT TASKS	Cost Estimate	Revised Budget
Project Management	[redacted]	[redacted]
Step One: Project Planning	[redacted]	[redacted]
Step Two: Stakeholder Engagement Directly Relevant to Rap Process	[redacted]	[redacted]
Step Three: Field Surveys and Studies	[redacted]	[redacted]
Step Four: Eligibility and Entitlements	[redacted]	[redacted]
Step Five: Implementation and Monitoring	[redacted]	[redacted]
Step Six: Reporting and Disclosure	[redacted]	[redacted]
Total Cost (USD)	[redacted]	[redacted]

The amended budget includes revisions to both fees and disbursements culminating in an overall increase of USD [redacted] Budget variations can be attributed to the following:

- Care has been taken to maximise utility of SRK visits to Sierra Leone and the Project area, which has enabled a reduction in project management costs;
- Expanding the CEMMATS team to utilise local knowledge to support stakeholder engagement has reduced stakeholder engagement costs;

- Increasing the time allocation for the field studies and subsequent entitlement planning increases their respective costs; and
- Inclusion of additional studies such as an ASM and land capability studies increase field studies costs.

For and on behalf of SRK Consulting (UK) Limited and CEMMATS

Dr Cathryn MacCallum
Principal consultant (Social)
Project Manager
SRK Consulting (UK) Limited

Dr Tony Rex,
Corporate Consultant (Hydrogeology)
Project Director
SRK Consulting (UK) Limited

Andrew Keili,
Project Manager
CEMMATS,

Abbreviations

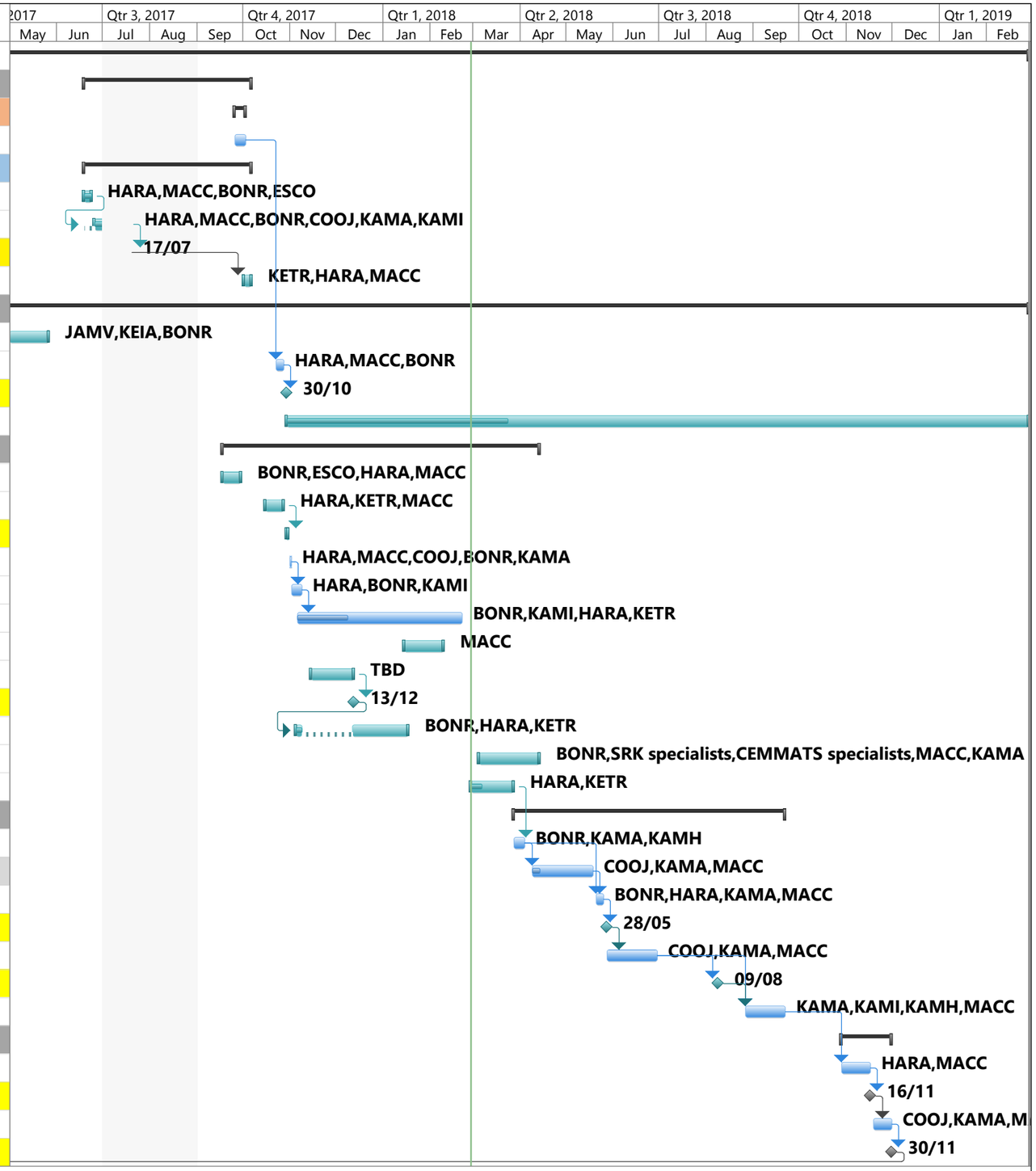
CAD	Computer-Aided Design
EPC	Engineering, Procurement and Construction
ESHIA	Environmental, Social & Health Impact Assessment
HEP	Hydro-Electric Power
GIIP	Good International Industry Practice
GIS	Geographic Information System
IFC	International Finance Corporation
IR	Infra-red
LIDAR	Light Detection and Ranging
MDA	Ministries, Departments and Agencies
MOE	Ministry of Energy
NEC	National Elections Commission
NGO	Non-Governmental Organisation
NIR	Near Infra-Red
PADC	Project Area Development Council
PAP	Project affected people/s
PC	Paramount Chief
RAP	Resettlement Action Plan
RF	Resettlement Framework
RFP	Request for Proposal
RGB	Red-Green-Blue
SEP	Stakeholder Engagement Plan
TBC	The Biodiversity Consultancy
USGS	United States Geological Survey

APPENDIX A REVISED BUDGET

APPENDIX

B REVISED SCHEDULE

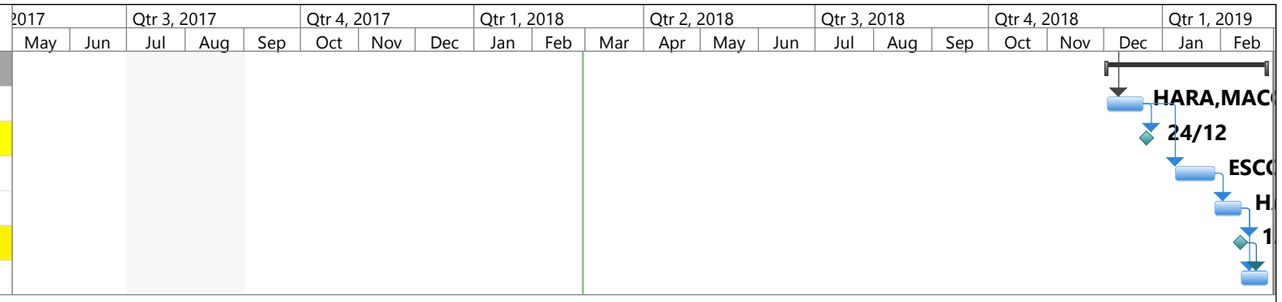
ID	Task Name	Duration	Start	Finish
0	**u6923Phase 2 schedule Final**	**418 days**	**Mon 01/05/17**	**Thu 28/02/19**
1	**Step 1 - Project Planning**	**19 days**	**Mon 19/06/17**	**Fri 06/10/17**
2	**Project Initiation**	**5 days**	**Tue 26/09/17**	**Mon 02/10/17**
3	Logistical planning and coordination	5 days	Tue 26/09/17	Mon 02/10/17
4	**Scoping**	**19 days**	**Mon 19/06/17**	**Fri 06/10/17**
5	Scoping Site Visit	5 days	Mon 19/06/17	Fri 23/06/17
6	Drafting Scoping Report	6 days	Mon 19/06/17	Mon 17/07/17
7	Scoping Report	0 days	Mon 17/07/17	Mon 17/07/17
8	Natural Resource Governance remote sensing	5 days	Mon 02/10/17	Fri 06/10/17
9	**Step 2 - Stakeholder Engagement**	**418 days**	**Mon 01/05/17**	**Thu 28/02/19**
10	Set up field office	20 days	Mon 01/05/17	Fri 26/05/17
11	Update Stakeholder Engagment Strategy and grievance mechanism	5 days	Mon 23/10/17	Fri 27/10/17
12	Updated Stakeholder Engagement Plan	0 days	Mon 30/10/17	Mon 30/10/17
13	Ongoing Stakeholder engagement	349 days	Mon 30/10/17	Thu 28/02/19
14	**Step 3 - Field Surveys and Studies**	**144 days**	**Mon 18/09/17**	**Fri 13/04/18**
15	Refinement of Survey Tool	5 days	Mon 18/09/17	Fri 29/09/17
16	Logistical planning	10 days	Mon 16/10/17	Fri 27/10/17
17	Survey Tool	1 day	Mon 30/10/17	Mon 30/10/17
18	Meeting with Diang paramount chief	1 day	Wed 01/11/17	Wed 01/11/17
19	Training of enumerators and piloting of survey and study tools	5 days	Thu 02/11/17	Wed 08/11/17
20	Household surveys (Inundation Area)	78 days	Mon 06/11/17	Wed 21/02/18
21	Artisanal Mining Study	20 days	Mon 15/01/18	Fri 09/02/18
22	Soil Capability Study	20 days	Wed 15/11/17	Tue 12/12/17
23	Artisanal Mining Report	0 days	Wed 13/12/17	Wed 13/12/17
24	Host Site Selection and desktop studies	31 days	Sun 05/11/17	Wed 17/01/18
25	Host site selection field studies	30 days	Mon 05/03/18	Fri 13/04/18
26	Data Analysis and Baseline Reporting	20 days	Wed 28/02/18	Tue 27/03/18
27	**Step 4 - Eligibility and Entitlements**	**128 days**	**Wed 28/03/18**	**Fri 21/09/18**
28	Define eligibility and entitlement requirements	5 days	Wed 28/03/18	Tue 03/04/18
29	Landscape visioning planning	30 days	Mon 09/04/18	Fri 18/05/18
30	Develop compensation framework and entitlement matrix	5 days	Mon 21/05/18	Fri 25/05/18
31	Compensation Framework and Entitlement Matrix	0 days	Mon 28/05/18	Mon 28/05/18
32	Livelihood restoration planning	25 days	Mon 28/05/18	Fri 29/06/18
33	Zonal Livelihood Restoration Plans	0 days	Thu 09/08/18	Thu 09/08/18
34	Stakeholder Consultation on proposed entitlements and LRP	20 days	Mon 27/08/18	Fri 21/09/18
35	**Step 5 - Implementation and Monitoring**	**25 days**	**Mon 29/10/18**	**Fri 30/11/18**
36	Develop Implementation Action Plan	15 days	Mon 29/10/18	Fri 16/11/18
37	Implementation Action Plan	0 days	Fri 16/11/18	Fri 16/11/18
38	Establish reflexive monitoring and evaluation plan	10 days	Mon 19/11/18	Fri 30/11/18
39	Monitoring and Evaluation Plan	0 days	Fri 30/11/18	Fri 30/11/18



Project: u6923Phase 2 schedul
Date: Mon 25/09/17

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

ID	Task Name	Duration	Start	Finish
40	**Step 6 - Reporting and Disclosure**	**61 days**	**Mon 03/12/18**	**Mon 25/02/19**
41	Prepare draft RAP	15 days	Mon 03/12/18	Fri 21/12/18
42	Draft RAP Report	0 days	Mon 24/12/18	Mon 24/12/18
43	Client and lender review	15 days	Tue 08/01/19	Mon 28/01/19
44	Final RAP completion	10 days	Tue 29/01/19	Mon 11/02/19
45	Final RAP Report	0 days	Tue 12/02/19	Tue 12/02/19
46	Disclose final RAP	10 days	Tue 12/02/19	Mon 25/02/19



Project: u6923Phase 2 schedul
Date: Mon 25/09/17

Task	Project Summary	Manual Task	Start-only	Deadline	
Split	Inactive Task	Duration-only	Finish-only	Progress	
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress	
Summary	Inactive Summary	Manual Summary	External Milestone		