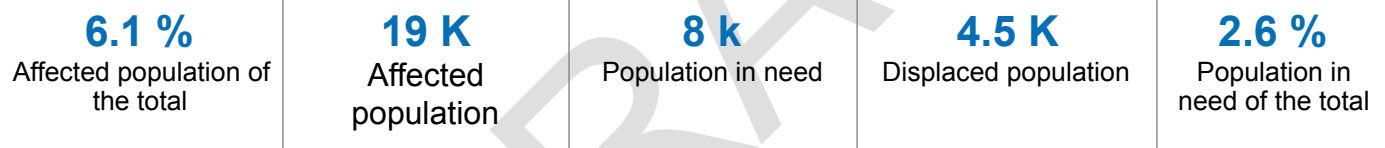


## 2021 Bata Explosions – Equatorial Guinea

### MULTI-CLUSTER/SECTOR INITIAL RAPID ASSESSMENT (MIRA)

#### Executive Summary

On 7 March 2021, a series of explosions were recorded at the armoury of the Nkuantoma gendarmerie and military barracks in Bata, the economic capital of Equatorial Guinea (Figure 1). According to official records, 107 people lost their lives due to the explosions, which also caused extensive damage to residential areas and in the military compound. More than 700 people were wounded, including women and children in the army barracks as well as in the residential areas near the military compound. The Government described the situation as catastrophic and called for the international community's support to respond to humanitarian needs. The following are a summary of the estimate key figures.



In response to this request, the United Nations deployed two international teams: a *security* team under the umbrella of the United Nations Regional Center for Peace and Disarmament in Africa (UNREC) to look at unexploded ordnance (UXO) risks; and a *humanitarian* team mobilised by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) through the United Nations Disaster Assessment and Coordination (UNDAC) mechanism. A number of UN member states (Spain, France, Israel, Qatar, Cameroon and USA) dispatched Emergency Medical Teams (EMTs) and Explosive Ordnance Disposal (EOD) experts to provide immediate medical attention and to address residual unexploded ordnance (UXO) risks so as to restore safety and security.

From 12 March to 2 April, the UNDAC team comprising of 16 team members was dispatched to the affected area to support national authorities and the UN Country Team on international emergency response coordination, needs assessments, environmental emergency management, information management and humanitarian financing. A Joint inter-agency needs assessments, coordinated by UNDAC, were conducted to identify, measure and advise on key humanitarian needs in six agreed sectors, existing response capacities, gaps and resulting strategic humanitarian priorities. This report presents findings and results from these assessments.

The explosions resulted in a high distribution of ammunition, in the city of Bata, causing a contamination of UXOs within a radius of approximately 7 km from the epicentre of the blast. Initial concerns about civilians accessing the highly UXO-contaminated areas, and with children and adults who are collecting metal parts from ammunition in the detonation site, have been mitigated. The progress is made in securing the explosion site, patrolling the area, launching an education campaign to inform the population and establishing a hotline. The identification, mapping, removal and destruction of UXOs is also advancing, although waste-picking and informal recycling remain a concern. In addition, there are environmental concerns over possible water and soil pollution through wash-out of ammunition leftovers and explosives.

Many people displaced by the explosions have temporarily moved inland. At the time of writing, several families are still living in heavily damaged buildings with poor housing conditions. Many families have also been separated by the explosions. Overall, shelter, WASH and food security have emerged as priority needs, with implications for longer-term rebuilding and spatial planning policies. Logistics remains a major concern for movement of incoming aid and responders, relatedly, protection of civilians (especially the most vulnerable) in a highly UXO-contaminated environment is an importance.

The allocation of one million US dollars from the Central Emergency Relief Fund (CERF) has been granted to cover immediate logistics and protection needs, including the activation of the United Nations Humanitarian Air Service (UNHAS).

Medical treatment has been provided for at least 615 affected people further to the explosions. As of 25 March, the health situation is improving, with 58 patients remaining in the three hospitals of the city. Post-explosion priorities include rehabilitation, physiotherapy and psychological support (particularly for children). There are concerns over injured people that may not have received medical attention yet, as well as patients that are being re-hospitalised after initial dismissal, also heightened the COVID-19 risks. There are no capacities for health care waste management at the city’s hospitals, with potential for vector contamination.

Schools have been closed for one month prior to explosions due to COVID-19. Closure has subsequently been extended for two additional weeks further to the blast. A total of 26 schools (public and private) have been damaged. There are concerns over educational continuity for an estimated 6,000 students affected.

Table 1: The humanitarian priorities

**Humanitarian Priorities**

- 1 SHELTER**
- 2 FOOD SECURITY, WASH & LIVELIHOODS**
- 3 LOGISTICS AND PROTECTION**
- 4 HEALTH**
- 5 EDUCATION**

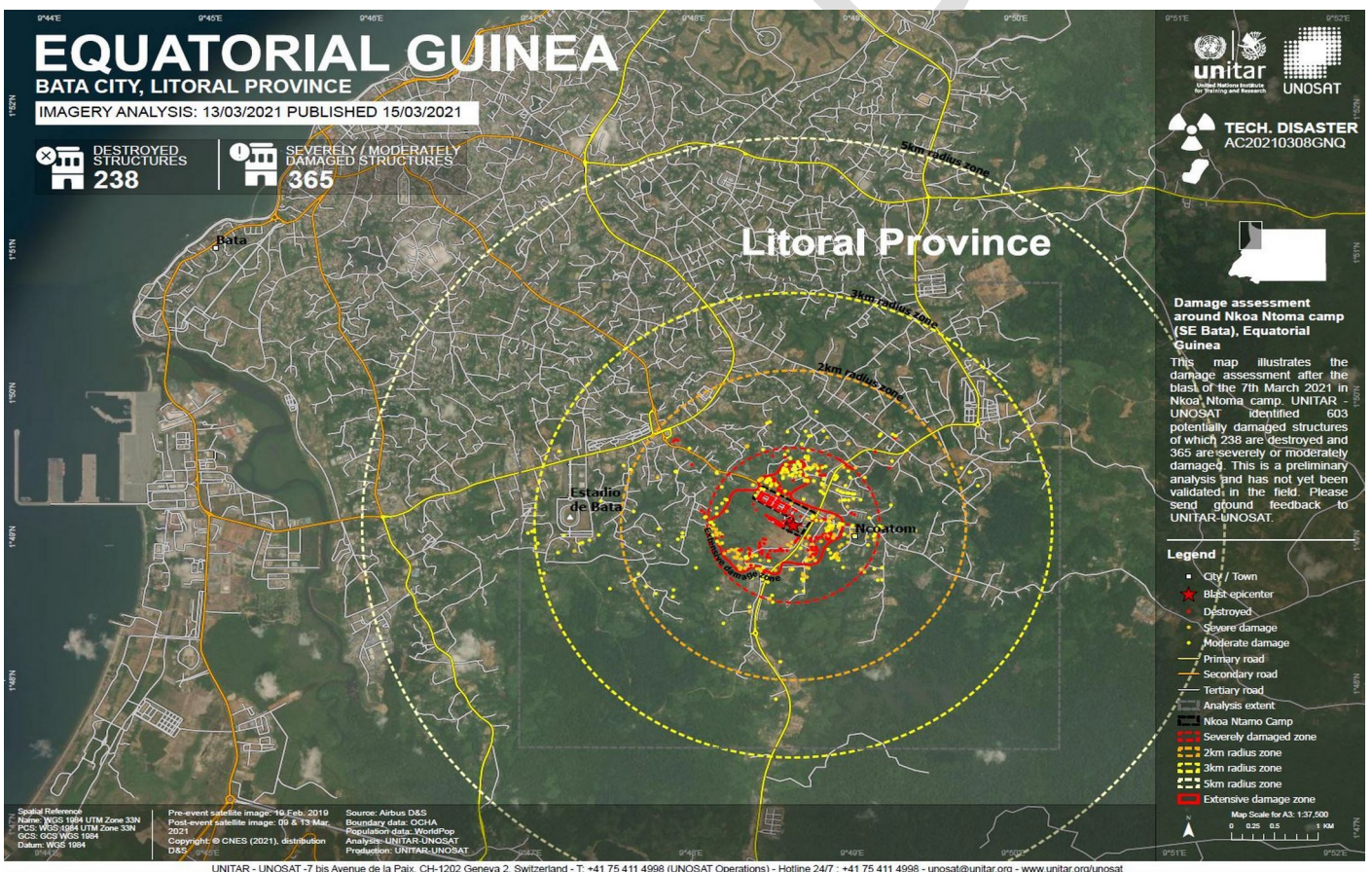


Figure 1: Location of the explosions and damaged buildings (UNOSAT)

## Drivers of the Crisis and Underlying Factors

As part of the environmental hazard assessment, two different areas of explosion sites were identified (Photo 1 and 2). The first is a civil container area, where it is suspected that conventional explosives for mining were stored. The second area is the military arsenal, where weapons and ammunition of the local army were stored. According to local residents, a fire may have caused the initial explosions. Utilising satellite images, the blast and craters are analysed. The first and strongest explosion was triggered by the explosion of containers in the civil container area where technical ammonium nitrate (explosives) was stored.

As an indication of the storage of technical ammonium nitrate on the site, empty storage bags (25 kg) were found in the south of the civil container area (Photo 6).

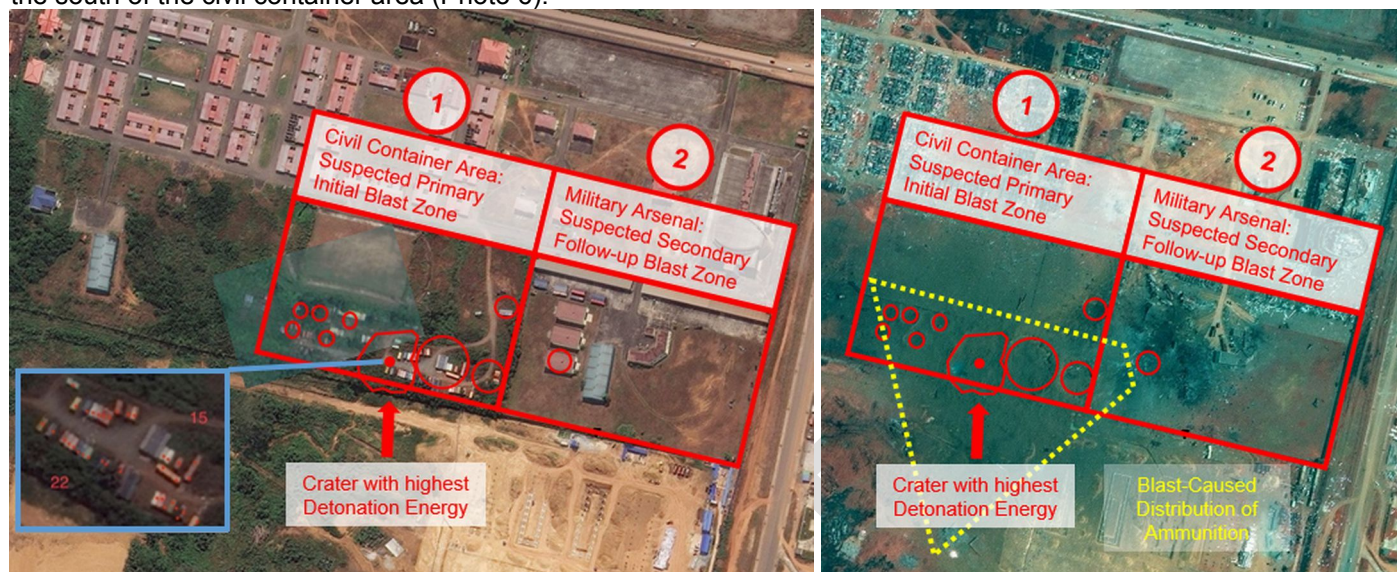


Photo 1: UNOSAT image before detonation

Photo 2: UNOSAT image after detonation

The initial blast implies a quantity between 300-1000 tons technical ammonium nitrate with pressure close to 1000 tons. 37 containers were counted on the civil container site, including a storage about 740 tonnes technical ammonium nitrate. The initial detonation of destroyed buildings completely in a radius of 250 metres and damaged further buildings within a radius of circa 700 meters. The civil container area blast spot initiated the military compound and made it the secondary blast zone.

Several structures in the ammunition depot collapsed and caused further detonations and fires in the military arsenal. Ammunition components ignited or were blasted, as impacts of munitions and components were reported up to a distance of 7 km. The detonation of the ammunition depot contaminated an area with a radius of 100 m heavily, and an area with a radius of 1 km moderately. Some types of the ammunition and ammunition components found are shown in Photos 3 to 5.

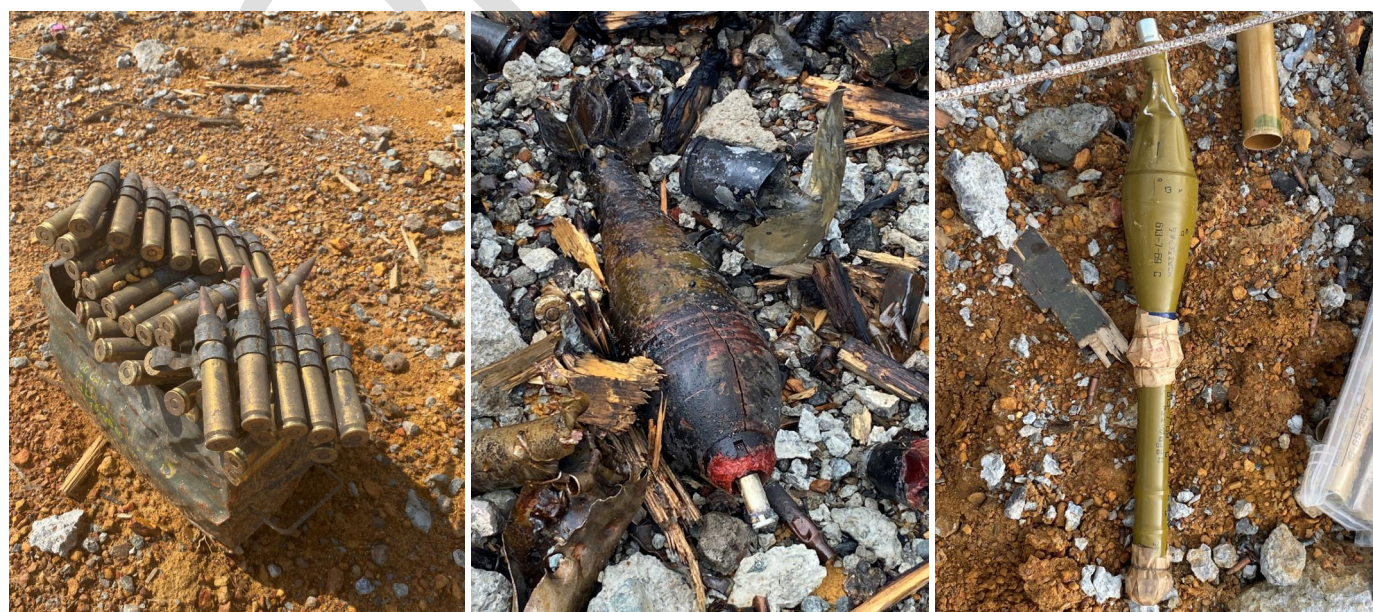


Photo 3: Light Ammunition

Photo 4: Mortar Grenade with damaged Detonator

Photo 5: Rocket Propelled Grenade Ammunition

Mining explosives with detonation cords and detonators as well as ammonium nitrate were found on the west side of the civilian container area (Photo 6 to 8).



Photo 6: Empty bag that contained technical ammonium nitrate



Photo 7: Explosive cartridges with ammonium nitrate

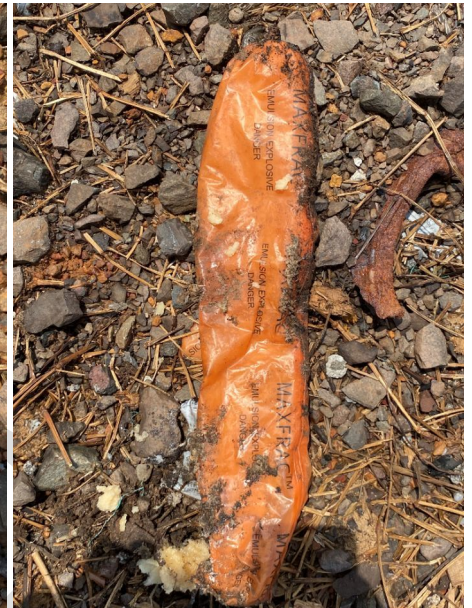


Photo 8: Explosive cartridges with ammonium nitrate

During the environmental assessment, various threats were surveyed, and on-site measurements were made:

- Ammunition including detonators and weaponry are still to be cleaned in the area
- At several spots, explosive leftover (orange powder) of RDX was identified and also the rocket Chicom 107mm that may contain an uncertain amount of white phosphorous
- Visible oil contamination
- Water wells and soils may have been polluted by heavy metal and others
- Destroyed houses were visited, rotten food in fridges found and identified as a biohazard, as well as the risk of collapsing houses identified.
- Hazards from damaged electrical fittings and exposed cables were observed
- No indications of asbestos were found in the destroyed houses
- No explosive gases were identified at the detonation point.
- No expected radiation was measured on the detonation spot and on ammunition parts which indicate that no radioactive uranium was found.

Due to the fact that children have collected ammunition and metal, the army needs more proper fences and patrolling the area to ensure safety and security especially for the people in the residential neighbourhoods. The ammunition and weaponry raise the risk for physical presence also in residential zones in the affected areas.

Environmentally, there are risks of leaks of oil, mining and ammunition chemistry and pollution of heavy metal in water and soil. Moreover, the pollution of ground water and soil may become long term problems that would need extended assessments and proper solutions. For the time, only rough assessments have been done, hence more detailed surveys should be conducted to avoid exposure when using water wells or accessing topsoil also for the coming farming.

Due to the destroyed ammunition parts and explosive leftovers, there is a risk of soil and water contamination by heavy metals like lead, cadmium, nickel, chrome, mercury etc and explosive chemicals like RDX, TNT, HMX. Indirect environment effects due to the explosion are fires that started due to the blast including fires from petroleum products and cars etc. that can generate compounds like dioxin and furans from incomplete combustion. Various fuel tanks, burned vehicles and oil barrels were identified in the area affected by the blast. The sites posing contamination risks are shown in Figure 2.

Since people in the area are using groundwater for drinking purposes there is a risk if the water is contaminated. People can also be exposed to the hazardous substances from soil, sediment, or dust. Children are highly at risk to be exposed due to their play habits. According to the risk for human health and the environment, the soil and water should be analysed and monitored to identify possible pollutions which can be traced to the explosion.

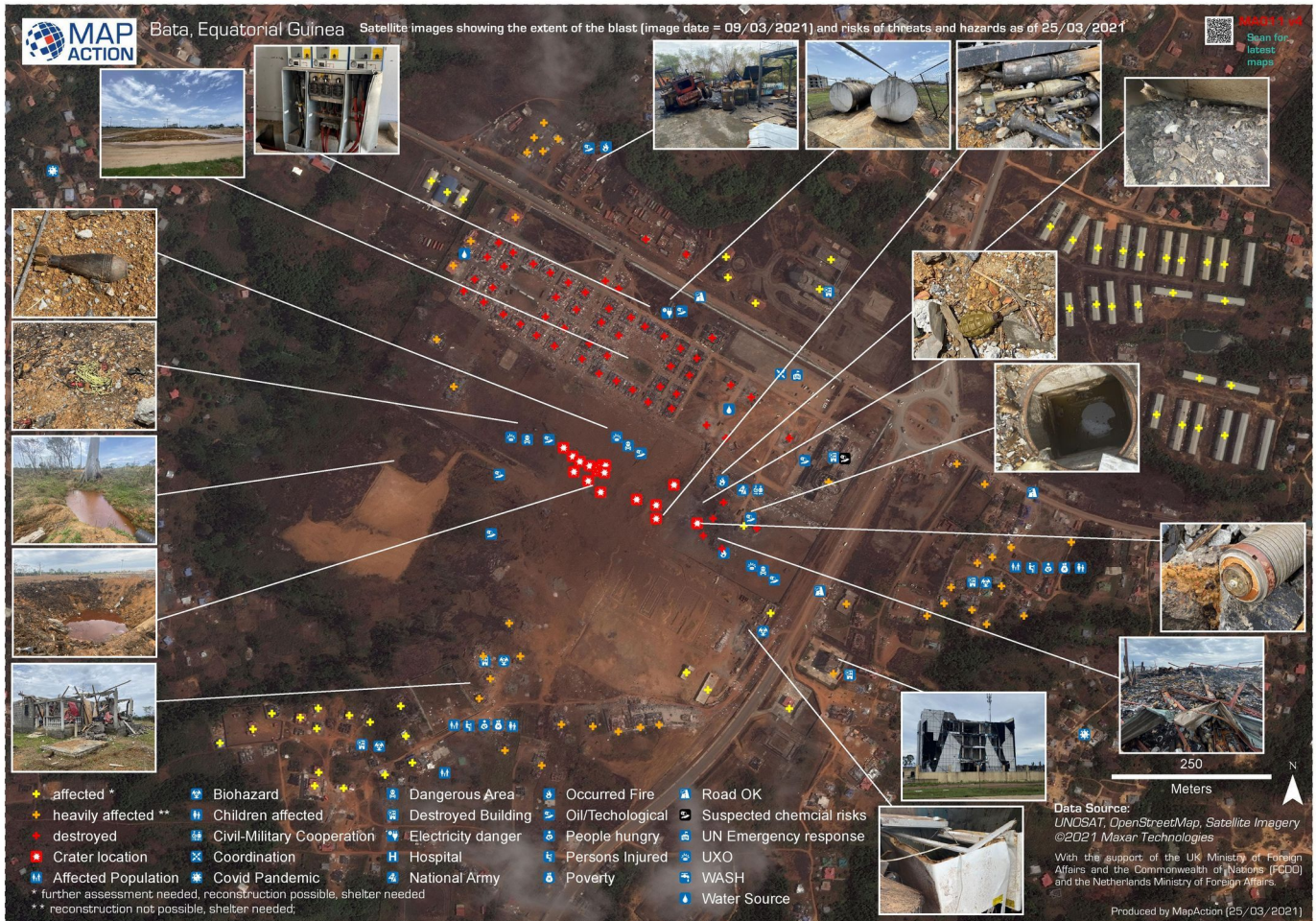


Figure 2: Satellite image and photos showing the affected area (UNOSAT)

Children have been identified collecting metal ammunition components that can cause detonation and result in death or serious injury.



Photo 9: Children collecting pieces of ammunition closely to the explosion site

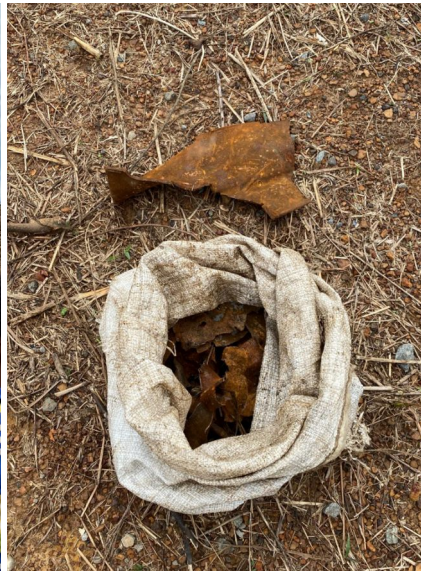


Photo 10: Collected metal



Photo 11: Collected ammunition

The dump-site in the municipality of Bata is approximately two kilometres from the explosion site (Figure 3). Wastepickers, adults and children, are regular at the scene collecting metals and other items that can be sold. Explosion's debris and waste are transported to the dump-site and is dumped on surface. Furthermore, the healthcare waste is mixed with hazardous debris and demolitions and are left unprotected at the dump-site.



Figure 3: The blast zone and the location of the dump-site (UNOSAT)

Ammunition and weaponry from the blast have been found together with debris at the dump-site. During the first two weeks, there were incidents of ammunition explosion due to burning of garbage at the site. Ammunition and the health care waste products pose a major risk to the waste-pickers at the dump site.

The dump-site is located over a water stream that receives water from the surface runoff and the leachate from the dump site. These kinds of waters usually contain high concentration of pollutions that can have a negative impact on the water quality in the stream and the contaminants can easily be further spread in the water systems.

## Scope of the Crisis



**Total population** is the total population projected by INEGE (<https://inege.gq/index.php/estadisticas/#59-anuarios-estadisticos>).

**Population in the affected area** is the estimated population living within a radius of 5 km from the blast point. For the type of event it is equal to the exposed population.

**Affected population** is the estimated population based on 4.6 members per household (INEGE, 2020). It is applied to an approximate ratio of 1 family per dwelling (≈ building).

**Population in need** corresponds to the entire affected population within 1 km of the point of the explosion and 50% of the affected population beyond 1 km.

**Target population**, all the population in need is considered.

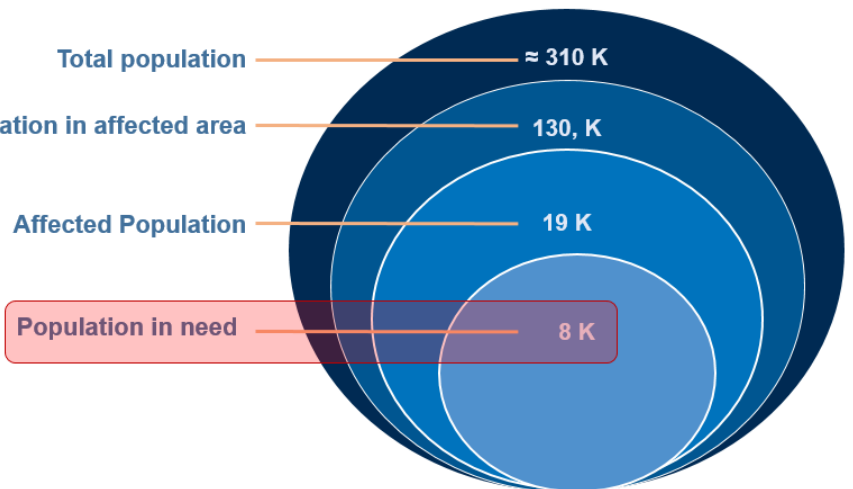


Photo 12: Affected houses close to the military base



Photo 13: An affected family due to the explosion

Table 2: Key figures

<p><b>310 K</b> Total Population (INEGE 2020)</p>	<p><b>130 K</b> People living in affected areas (INEGE 2020)</p>	<p><b>6.1 %</b> Affected population of total</p>
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<b>19 K</b> Affected population (multiple source)				
<b>8 K</b> Population in need		<b>4.5K</b> IDPs	<b>107</b> Fatalities (Official dates)	
<b>3.6 K</b> Non-Displaced	<b>2.6 %</b> Targeted population of total	<b>4.5 K</b> Staying with families and friends (source)	<b>3.5 K</b> In need, Non- Host (source)	<b>700</b> Injured (Official dates)

## Needs in Affected Areas



### Shelter

- Damaged and destroyed structures have generated displaced and homeless people and families.
- Civilian homes and structures, close to explosion area, are completely destroyed as well as services like electricity and water sources are damaged as well as pollution impacts soil, air and water.
- There is an urgent need for displaced persons to receive interim shelter, drinking water, essential food and safety in places where they are hosted. Most of them are with friends, families and a considerable number has moved to the interior of Bata.
- A certain number of the people are renting or with staying with relatives. But some remain in damaged houses affecting the remaining livelihoods and decapitalizing families which is even becoming more critical under the rain period.
- It is necessary that a timeline and places for accommodation, including service and support require to be identified and communicated asap. The interim shelter should also be linked up with a more permanent housing plan.
- Nkuantoma one is a neighbourhood located to the Northwest of the exploded site where the disaster originated. It is a community made up of about 600 families. 80% of the houses have suffered some type of damage, particularly ceilings and windows. Of these, 30% have been totally destroyed and are not habitable, those affected have moved to the homes of friends, relatives and eventually to other areas. A constant statement in the community is to rebuild homes.
- It is observed that close to 10% of the people have started repair their homes. This is because incomes depend of having workable homes and need urgent support to re-start their economic activities.
- In the case of seriously affected homes, material objects have been lost: electronic devices, furniture and other items; but no immediate future help is foreseen. Reportingly, the government is not taking these facts into account.
- There is a need that the research carried out by the government cover all the areas and should be registered all victims in housing needs.



### Health

- The new hospital has been affected, including its COVID19 service. It is reported that some patients from the explosion do not recover properly and thus need rehospitalisation. It is important to make adequate cures and closer follow-up.
- The fear is still with people in the affected communities. Therefore, psychosocial treatment is considered a priority, also with minors.
- Some people manifest pain in different parts of the body and the need for a medical check-up. The review of other ailments, traumas and internal conditions is considered a priority.
- Many children still have sequelae, some did not speak for some time and others have startled frights and difficulty falling asleep. It is necessary to approach psycho-emotional care in a more comprehensive and coordinated way among the different local institutions that provide assistance in this field.
- The need to provide supplies and awareness about biosecurity measures for COVID19 has also been verified at food rations distribution sites.





### WASH and Nutrition

- The entire population is concerned about the quality of the water, due to ammunition waste and pollution. In terms of sanitation, there are latrines with no obvious damage, however, due to locations some sewage systems can cause contamination of water wells.
- Water sources are totally damaged in the central part of the explosion zone. A number of wells in the residential areas close to the military camp may be polluted by heavy metals and explosive chemicals. The craters formed by the explosions are accumulating water as a result of surface runoff that apparently would also contain residues from the explosion, constituting a possible means of contamination of groundwater. Its monitoring and evaluation of immediate measures to mitigate the effects is urgent.
- Water, hygiene, and sewage systems needs to be part of the interim accommodation as well as residential areas must be part of a longer-term policy on WASH.
- Regarding waste management, garbage is available in two different ways. Some families, especially the most dispersed and close to forest areas, accumulate it and take it to the forest. The other families that are more concentrated accumulate it and deposit it in isolated spaces; later and depending on the volume of accumulation they proceed to burn it. In both cases, the same procedure has been maintained, to which the waste product of the explosions has been added, increasing the environmental impacts.
- Since there is no separation between health care waste and other kinds of waste, everything is mixed at the dump-site in Bata. Some emergency measures are needed to reduce the exposure risk for the waste pickers at the dump-site
- In Nkuantoma, the water supply is through wells and tanks with localized distribution networks. The community expresses great concern regarding the quality of the water, due to the ammunition waste. It is considered a priority to verify the quality of the water, since among the population, there is a perception and fear of contamination of wells and rivers as a result of runoff and erosion of explosives residues.



### Food, Security and Livelihoods

- Along with the need to rebuild their homes, the interviewees stated limited access to food is considered one of their most urgent needs.
- The markets and small businesses in the affected area are damaged which indicate that some impacted people may have limited access to food and thus children potentially being malnourished due to effects on the market infrastructure and income setting. Most of the families have lost their livelihoods, small business businesses, small farms, stalls, and retail sales.
- Due to the emergency, the Remar orphanage is serving the community with daily food rations distributed to about 500 people, mainly children and women. The orphanage plans to extend this service for at least the next six months.
- In orphanages as well as places where food rations are distributed, the centres are having problems with overcrowding and lack of space and utensils. The demands are increasing every day. The need for materials associated with this type of distribution is necessary to provide care in accordance with humanitarian standards and COVID19 policies.
- Recently, a total of 293 people has been identified in the Nkuantoma neighbourhoods, affected by the explosions. The livelihoods of most of these families have been seriously affected, as their income depended mainly on small agricultural activities on subsistence farms around the affected military barracks and the subsequent sale of their production in the Bikuy and Mendok markets.
- In productive terms, small companies and businesses, such as a “water bottler” in Nkuantoma, have been touched. In addition to losing their productive equipment, these damages represent a loss of employment in the community. Another example is taxi drivers with badly damaged cars.



### Protection and GBV

- Gender-based violence needs to be surveyed, as affected people need to be capable of moving safely, stay secure in host sites as well as disabled victims needs support and local assistance.
- In the Remar orphanage centre, they housed 70 adolescents, prior to the explosion, but currently they are not able to offer exact figures of the youngsters they host. The building itself shows damage to ceilings and other areas and thus young people have been transferred to Somagec about six kilometres away.

- Family separation occurred, as affected parents are forced to distribute their children among various families or households. Another element is the lack of care for elderly and affected victims, the initial response is focusing on youngsters who have been prioritized over elderly people often sitting still in their damaged homes.
- Sexual and reproductive health is of concern, among those affected as a number are pregnant women that have also been affected in the last stage of pregnancy.
- Another element identified is the lack of care for the affected elderly people where some are still in their damaged homes.
- In dump sites, numerous children collect items for sale and therefore they are under risks due to ammunition and health care waste



#### Education

- In the affected area, schools have been closed for more than a month due to the COVID19 situation.
- Mapping of affected schools is made, 25 schools; nine publics and 16 privates, are affected by the explosion of the 7<sup>th</sup> March.
- During field visits, it has been verified that the explosions caused serious damage to the educational infrastructures and materials; such as benches and tables, classrooms, student bedrooms, teachers' homes, supervisory and management personnel, bathrooms, school canteens, libraries, sports halls, sports fields, administrative buildings, office furniture, storage, laboratories, teaching materials etc.
- The destroyed schools have no immediate alternatives for the reconstruction of their buildings; Although some private centres have started rebuilding, but completing it immediately is limited, as well as finding alternatives for classes that are to begin. However, some schools may implement tents and child-friendly spaces, based on clearing land, removing debris, enabling a sanitary service, cleaning wells and obtaining the minimum furniture and equipment. Parents and like-minded people would be willing to collaborate in such tasks.
- It is important to identify the educational centres that have been destroyed and do not have the possibility of starting classes at the end of the month and installing educational tents and children's spaces.

## Response Capacity

### National Response Capacity

### International Response Capacity

Emergency Operations Centre (EOC) has been set up in Bata, chaired by UNDAC and composed of the focal points of the operational UN agencies, the IFRC/Red Cross and NGO representatives. The EOC is promoting coordination across key humanitarian sectors and three operational cells: - EMT Coordination Cell, the Assessment and Analysis Cell and the Environment Cell.

Table 3: The organization, leading sectors and funding

Organization	Leading Sectors	Funding by UNS/EU/Nation States
CERF	Logistics & Protection	\$1,000,000
FAO	Food, Security and Livelihoods	\$100,000
WHO	Health	\$ 50,000
UNICEF	WASH and Nutrition	\$400,000
UNESCO	Education	\$ 40,000
IFRC	Shelter	€160,000
EG Red Cross	Shelter	\$100,000
UNDP	Food, Security and Livelihoods	\$100,000

## Humanitarian Access

Safety, security, and protection of civilians remain critical. Meanwhile, the National Emergency Management Committee (EMC) continues to meet and monitor the management of in-kind relief aid received from donors and the private sector. The team is working on a strategy that will ensure aid is channelled to the most vulnerable population and waste is avoided. WHO and UNICEF are also reinforcing their logistics capacity and continue to mobilise additional expertise to help the government put in place an effective management of the warehouse and distribution of medical and non-food supplies donated by Member States, private companies and individuals. An inventory of available stock is being undertaken to support a regular, orderly and accountable distribution system for food and non-food items to the affected people. The assessment teams have observed civilians collecting and selling metal and children playing in dangerous sites (Photo 14). With schools closed, children as young as 10 years old are seen collecting metal scraps for sale – an indication of a potential increase in child labour. This situation demonstrates the urgent need for a localised explosive ordnance risk education (EORE) info programme for the civilian population living within a 10 km radius of the epicentre of the explosion. The authorities are taking steps to install site security, limit access to the location and setting up a police post along the main roads.

An outreach campaign on the risk has been launched by Mines Advisory Group (MAG) and UNICEF in collaboration with UNESCO and UNREC. The military has also put in place a hotline, where citizens can call and report on the suspected ordnance. As of 16 March, the Equatorial Guinean military team responsible for responding to hotline requests is now accompanied by the members of the French EOD team.

UNICEF has provided support in coordinating the reception of non-food item donations from donor countries and the private sector at Bata airport.

Access between Malabo and Bata is identified as the biggest constraint to relief operations. Support from UNHAS services is urgently required. The private sector has also been at the forefront in providing logistical support, particularly, by transporting arriving support teams from Malabo to Bata.

WHO is providing logistical support for the management of stocks of medical materials and equipment at the central warehouse of the regional hospital in Bata. Activities include an update on arriving relief aid, fitting out of space in the warehouse to receive the next cargo shipments, delivery of medical equipment to the local hospitals and medical clinics. The Spanish team stationed at the main hospital, compilation of packaging lists of all the medicines that have arrived in the warehouse and entering outputs into the management software.

Photo 14: Children collecting metals close to the explosions site

## Coverage and Gaps

Risks are part of the ammunition cleaning and environment vulnerabilities. Explosive risks, pollution and contaminations have a direct impact on basic humanitarian standards including access to food, water, health and educational services together with protection of basic human rights. It is necessary, to focus on the humanitarian issues related to the crisis, therefore also the planning for longer term projects should include an option to better the capability to respond to emergency situations. Explosive Ordnance Disposal (EOD) teams and experts should proceed to conduct a risk mitigation measures using Hazard Identification and Risk Assessment (HIRA). The risk assessment should be done in immediate, intermediate and long-term processes. The measures shall be communicated to the public. The salvage storage and or destruction of ammunition needs to be quality controlled as well as hazard mitigation activities are also urgent.



Furthermore, the environmental issues are related to the risk of contaminants from the ammunition and have an impact on the humanitarian situation. The increased load of health care waste due to the explosion is also an issue of

concern since all the health care waste ends up in the dumpsite without any separation or security measures to decrease the risk for waste pickers or for the environment.

For those reasons, the ammunition and the environmental activities should be part or related to the humanitarian settings.

Coordination, assessments and information management have facilitated a common understanding of the situation on the ground among and across national and international responders. More efforts should be put in localising and identifying the response activities. The work shall continue to be well coordinated and including working closely with affected communities.

WASH assessments are being conducted as well as more details and data must be updated. and a liaison between internationals, NGOs, communities and authorities. A variety of implementers should be part of briefings and meetings to better share information. Long term additions may be part of the handover of current activities, as well as emergency response training should be considered.

Food and nutrition are problems being identified also by the communities and the NGOs. A quality check system should be implemented to ensure that affected people are not ending up in dire situations.

Part of protection should also focus on sharing and educating on the risks which are now being part of the areas part of the explosive disaster.

Rehabilitation, physiotherapy remain the main medical gap. WHO is looking at getting in physiotherapists as there is extremely limited capacity in country.

There is a need to cover the capacity gaps amongst healthcare staff. Concerning health care waste management, (HCWM) the following need to be improved; separation, colour coding, labelling, treatment, transportation and disposal. Today the health care waste is mixed with other kind of waste at the dump-site in Bata and it poses a big health risk for the waste pickers

## Strategic Humanitarian Priorities

Humanitarian coordination is ongoing but also needs to be part of a handover when UNDAC and other urgent deployed staff are leaving, so information sharing, and policies can be continued.

Shelter is that will be addressed immediately but should similarly have some long term and more permanent solutions incorporated. In the community of Razel, a given percentage, which illustrate circa a quarter of the populations or approximately 1,400 families reallocated to friends and family houses due to the disaster. It was documented that in one or two houses were currently holding 27 people. The governmental entities have asked people to start returning to their home areas. However, only few displaced people have begun to return after the government announcement. One of the reasons taking up is that reconstruction is a prerequisite to be able to return to their homes. In general, in addition to the damage to the houses, the families lost or were highly damaged electronic equipment, food utensils and other belongings (Photo 15-17).



Photo 15 -17: Buildings affected by the explosions in Bata

Furthermore, food security and livelihood actions will be reinforced by being based on systematic surveys, regularly conducted and communicated. Major local changes can impact a number of people based on ammunition explosions

and environmental pollution and limitations from wells and soils. Food, nutrition and water access limitations should be coordinated to actors implementing protective and improving projects.

No doubt that the current situation based on the ammunition explosions highlight a potential increase in child labour in Bata. Elderly people are highly affected by missing access to food markets, drinkable water and of course destroyed accommodation. A number of families are interim located which clearly indicates that female parents and children stand in much more delicate situations. Protection activities must be identified and supported.

It is important that, in general, communication strategies are developed and shared with implementors. Feedback from affected people should also be common and updated on a regular basis.

Health services are also affected by the emergency, the fast and solid international support should be collaborated with developing strategies on donated materials, training and future projects also focusing on the COVID19 crisis. Environmental approaches and development will have an effect on the humanitarian status. The eco-friendly growth is essential and will reduce risks and decrease dangerous consequences. Recyclable plants and proper waste management will not only improve the current setting, but also be part of local maturities and improvements. Such a progress will reduce coming pollutions, improve water quality, agricultural sustenance as well as living conditions and provide a better and more constructive approach and reactions to emergencies and crises.

Table 4: Recommendations by actors and sector

SECTOR	ACTORS	RECOMMENDATIONS
	Emergency Management Committee Civil Protection UNREC	<ul style="list-style-type: none"> <li>• Activate contingency plan including early warning system</li> <li>• Set up munitions and explosive devices sites outside urban residential areas</li> <li>• Cleaning of UXOs (unexploded explosive devices)</li> <li>• Fence the areas with the highest risk of exposure</li> </ul>
	Media	<ul style="list-style-type: none"> <li>• Ensure public information campaigns on activities, hazards and pollution</li> </ul>
		<ul style="list-style-type: none"> <li>• The housing areas related to the site of the explosions, shall not extract water from their wells especially for domestic consumption. A survey of soil and groundwater should be done asap</li> <li>• An emergency measure is to dispose and cover health care waste in a labelled location in the dump-site</li> </ul>
	Ministry of Social Affairs IFRC & Red Cross UNHCR	<ul style="list-style-type: none"> <li>• Evacuate wounded victims and provide shelter sheets</li> <li>• Provide the needed items for shelter needs</li> </ul>
	Health & Social Affairs Ministry	<ul style="list-style-type: none"> <li>• Organise stock of medicines</li> <li>• COVID-19 vaccinations and test campaign</li> <li>• Control other diseases in risk areas is important</li> <li>• Capacity building for health care waste management</li> </ul>
	Social Affairs Ministry	<ul style="list-style-type: none"> <li>• Make a strategic stock plan available for emergency relief</li> <li>• Prepare and maintain water tank trucks</li> </ul>

	Social Affairs Ministry Red Cross UNICEF FAO	<ul style="list-style-type: none"> <li>• In the reception centres where food rations are distributed to affected families, incorporate personal protective equipment associated with COVID-19</li> <li>• Food distribution plan and potential cash transfer plan</li> <li>• Distribute seeds</li> </ul>
	UNFPA UNESCO	<ul style="list-style-type: none"> <li>• More control and access restrictions required on the affected areas.</li> <li>• Environmental issues related to the blast should be part and the humanitarian activities and coordination</li> </ul>
	UNICEF UNESCO	<ul style="list-style-type: none"> <li>• Assist children with school materials</li> <li>• Support temporary relocation places for learning or e-learning in safe and accessible areas for affected students</li> </ul>
	WFP	<ul style="list-style-type: none"> <li>• During the disaster, logistics has been a big problem for actors responding. UNHAS additional flights are a highly needed activity</li> <li>• The private sector (Chevron oil company a.o.) has also been at the forefront in providing logistic support and further options should be identified</li> </ul>
	UNCT	<ul style="list-style-type: none"> <li>• Coordination and sector information sharing should be well organised</li> <li>• Household and Building Damage Assessment (DHBA), led by UNDP, is a tool where more humanitarian needs can be identified</li> </ul>