Department for Environment, Food and Rural Affairs

Illegal Wildlife Trade

Application form for Illegal Wildlife Trade Challenge Fund 2014

Please read the guidance notes (available at https://www.gov.uk/government/publications/the-illegal-wildlife-trade-challenge-fund) before completing this form. Where no word limits are given, the size of the box is a guide to the amount of information required.

Office use only Date logged: Logged by: Application ID:

1. Name and address of lead organisation

(NB: Notification of results will be by email to the Project Leader)

Applicant Organisation Name:	**Stimson Center**
Address:	
City and Postcode:	
Country:	
Project Leader name:	
Email:	
Phone:	

2. Project title

Title (max 10 words) **Technology and Innovation Against Poaching and Wildlife Trafficking**

3. Project dates, and budget summary

Start date: **1 February 2015**		**End date:** **31 January 2017**	**Duration: 2 years**	
2014/15 **£ 9.159**	**2015/16** **£ 61.390**	**2016/17** **£ 49.451**	**2017/18** **£**	**Total request** **£ 120.000**
Proposed (confirmed and unconfirmed) co-financing as % of total Project cost: UK IWF request: 46%; Confirmed: 36%; Unconfirmed: 18%				

4. What will be the outcome of the project?

(See Guidance notes 3.1 and 4, and Annex B - guidance on developing a logframe)

This should be an action orientated statement e.g. training provided to the judiciary results in increased successful prosecutions of poaching. (You may copy and paste the same answer as provided in the outcome section of Question 21 here).

(max 75 words)

The Kenya Wildlife Service, through technology deployment and training at the Ngulia rhino sanctuary, will have improved its ranger, commander and research force to protect the rhino population from poaching and more effectively combat the illegal trade in rhino horns. As a result, security will improve and Kenya's rhino population will grow, leading to increased levels of tourism and as such a more stable income stream for the local community around Tsavo West where Ngulia is located. Under Academy Ngulia, the tech and training initiative will serve as a model for other national parks in Kenya and throughout Sub-Saharan Africa.

5. Country(ies)

(See Guidance notes 3.3 and 4.3)

Which eligible country(ies) will your project be working in? You may copy and paste this table if you need to provide details of more than four countries.

Country 1: Kenya	**Country 2:**
Country 3:	**Country 4:**

6. Which of the three key IWT Challenge Fund objectives will your project address?

(See Guidance note 3.1)

Tick all that apply.

1. Developing sustainable livelihoods for communities affected by illegal wildlife trade	☐
2. Strengthening law enforcement and the role of the criminal justice system	☒
3. Reducing demand for the products of the illegal wildlife trade	☐

6b. Which of the commitments made in the London Conference Declaration does this project support? Please provide the number(s) of the relevant commitments.

(See Guidance note 3.1)

C. 17. Strengthening law enforcement

XIII. Invest in capacity building to strengthen law enforcement to protect key populations of species threatened by poaching.

7. About the lead organisation:

What year was your organisation established/ incorporated/ registered?	**1989**
What is the legal status of your organisation?	NGO Yes ☒ No ☐ Government Yes ☐ No ☒ University Yes ☐ No ☒ Other (explain)
How is your organisation currently funded?	(Max 100 words) **Stimson's funding is primarily through grants from private foundations, the US government and foreign governments.**
Have you provided the requested signed audited/independently examined accounts? **Note that this is not required from Government Agencies**	Yes ☒ No ☐

7b. Provide detail of 3 contracts/projects previously undertaken by the lead organisation that demonstrate your credibility as an organisation and provide track record relevant to the project proposed. These contacts should have been held in the last 5 years and be of a similar size to the grant requested in your IWT Challenge Fund application.

Contract/ Project 1 Title	***Increasing Africa's Nonproliferation Capacity***
Contract Value/ Project budget	**$**

Duration	**12-months**
Role of organisation in project	**Stimson conducted and implemented the project independently.**
Brief summary of the aims, objectives and outcomes of the project.	**The goal of this research project was to build government support for nonproliferation in key emerging markets around the globe. The project focused on improving border insecurity in East Africa, using Kenya as the case study.**
Client/Project Manager contact details (Name, e-mail, address, phone number).	**US Government; Naval Postgraduate School**

Contract/ Project 2 Title	***Bridging the Security/Development Divide through Border Security Capacity Building***
Contract Value/ Project budget	**$ USD**
Duration	**18-months**
Role of organisation in project	**Stimson's Managing Across Boundaries Initiative lead and executed this project**
Brief summary of the aims, objectives and outcomes of the project.	**The Stimson Center worked with an inter-agency group of Kenyan stakeholders to develop a Kenya Border Security Action Plan (BSAP) and Gap Analysis that builds national capacity at the intersection of security and development. The effort laid the policy foothold for the current demonstration project in West Tsavo. Moreover, the plan was designed to be replicable throughout the East African sub-region.**
Client/Project Manager contact details (Name, e-mail, address, phone number).	**Government of Sweden**

Contract/ Project 3 Title	***Building Pragmatic Border Security in East Africa***
Contract Value/ Project budget	**$**
Duration	**12-months**
Role of organisation in project	**Stimson's Managing Across Boundaries Initiative led and executed this project**
Brief summary of the aims, objectives and outcomes of the project.	**The Stimson Center conducted a feasability study and designed a 2-year porject, including technology and training, targetting the Ngulia Rhino Sancatury, in Tsavo West. Working with local partners, the effort led to the existing demonstration project for which the Stimson-led consortium seeks implementation support from the IWT.**
Client/Project Manager contact details (Name, e-mail, address, phone number).	**Government of Australia**

8. Project partners

Please list all the partners involved (including the Lead Organisation) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. This section should illustrate the capacity of partners to be involved in the project, and how local institutions, local communities, and technical specialists are involved as appropriate. Please provide written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.

Lead Organisation name:	**Stimson Center**
Website address:	**www.stimson.org**

Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)	**Over the last three years, Stimson has worked closely with Kenyan government authorities and key donor countries to develop opportunities for bottom-up technology/training capacity building against environmental crimes and a wide range of other transnational criminal activities in Kenya and across Eastern Africa. Stimson has enlisted a consortium of local capacity building experts, technology specialists, Kenyan ICT companies and private sector technology providers to execute a project at Ngulia. A Memorandum of Understanding with the Kenya Wildlife Service was signed in October 2014. Stimson will manage the execution of this project and document a best practices for wildlife protection through technology, training and innovation. Stimson, in prospecting for this project in previous phases, has already designed, in partnership with the KWS, a 2-year strategy that will be operationalized in Ngulia.**

Partner Name:	**The Kenya Wildlife Service**
Website address:	**http://www.kws.org/**
Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)	**In partnership with Stimson, the KWS will bring together relevant KWS officials and staff to accompany Stimson Center staff and consortium partners to implement a technology-based step-by-step plan at the Ngulia Rhino Sanctuary. The KWS will participate in providing relevant qualitative and quantitative information to Stimson and partners, keeping in mind that the project aims to be both replicable and scalable. The KWS will also share with Stimson regular updates and documentation on the progress of the introduction of technology, training and overall border security system and other relevant information.**
Have you included a Letter of Support from this organisation?	Yes ☒ No ☐

Partner Name:	**Linköping University**
Website address:	**www.liu.se**
Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)	**Linköping University, headed by Professor Fredrik Gustafsson, will lead the technical expert team and be responsible for management and supervision of technical development, coordination, and system integration. Gustafsson is professor in sensor informatics, specialized in surveillance system and protection of critical infrastructure. Professor Gustafsson has a successful track record of working with the private technology sector to develop sustainable solutions to global border challenges. Professor Gustafsson is an internationally renowned researcher, with publications including more than 300 papers, 5 books and 30 patents. Professor Gustafsson will be supported by a number of postdocs in executing this project.**
Have you included a Letter of Support from this organisation?	Yes X No ☐
Partner Name:	**Ihub**
Website address:	**www.ihub.co.ke/**

Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)	**Headquartered in Nairobi, Ihub is Eastern Africa's premier ICT company and will be in charge of assisting Linköping University in developing the software platform, which is part of phase 1 of this project (see below). In that capacity, Ihub will be working closely with the rangers, officers, commanders and wardens to design the software and evaluate user experience in the field. Ihub will also monitor and evaluate the impact of the technological system through interviews and on the ground observations. Stimson has also secured the active participation from other technology and communications companies, including Airtel, Kenya's second largest telecommunications companies.**
Have you included a Letter of Support from this organisation?	Yes ☒ No ☐

9. Project staff

Please identify the core staff on this project, their role and what % of their time they will be working on the project. Please provide 1 page CVs for these staff. Please include more rows where necessary**.**

Name (First name, Surname)	Role	% time on project	1 page CV attached?
Johan Bergenas	**Project Leader**	**60%**	Yes ☒ No ☐
Brian Finlay	**Managing Director, Managing Across Boundaries Initiative**	**3%**	Yes ☒ No ☐

Research Assistant	**Assist the Project Lead as necessary**	**50%**	Yes ☐ No ☒

10. Species project is focusing on

(see Guidance note 4.1)

Where there are more than 4 species that will benefit from the project's work, please add more boxes.

1. Rhinoceros	**2.**
3.	**4.**

11. Problem the project is trying to address

What specific aspect(s) of the illegal trade in wildlife will your project address? Please describe the level of threat to the species concerned, and which communities are affected, and how?

(Max 300 words)

Over 2,400 rhinos have been killed by poachers in recent years. The U.N. Secretary General, national governments and independent NGO analyses have drawn direct and indirect links between poaching/wildlife crime and transnational criminal organizations, insurgencies and even terrorist organizations in Africa. Sharply declining wildlife populations also have significant economic consequences. Approximately 15 percent of Kenya's GDP comes from the tourism sector, where rhinos and elephants are star attractions, making their disappearance a significant economic threat. The KWS is fighting to protect the animals, but rangers are overstretched, underequipped and in need of training. Many attempts at technology capacity building and training are underway, but all too many of these initiatives focus on top-down "technology drop" strategies, including deployment of extremely sophisticated tech systems, such as unmanned aerial systems as a first step. Previous development and security efforts in the Global South have demonstrated that bottom-up approach is needed to ensure sustainability. Such an approach would take into consideration the current level of equipment, technology and training among the rangers and their officers. A more integrated approach to the poaching challenge is also necessary, drawing on top talent and technology to manage the supply-side of this issue, while not overwhelming partner organizations in the field. In short, the international community must assist in bringing more robust protection measures to African wildlife sanctuaries and national parks, while at the same time taking into consideration that the most sophisticated system may not be the most appropriate—at least initially. In this light, the conservation, development and security communities must find opportunities to share resources and collectively combat the challenge of wildlife crime. Technology and training must be better utilized in this effort, and capacity building efforts must be locally driven, designed from the bottom-up. Stimson aims to pilot exactly such a ranger-oriented technology/training system that builds a holistic security system.

12. Methodology

Describe the methods and approach you will use to achieve your intended outcomes and impact. Provide information on:

- How you have analysed historical and existing initiatives and are building on or taking work already done into account in project design
- How you will undertake the work (materials and methods)
- How you will manage the work (roles and responsibilities, project management tools etc.).

Please make sure you read the Guidance Notes, particularly Sections 3.1 and 3.2, before answering this question.

(Max 1000 words)

The Stimson Center, in partnership with local Kenyan authorities, including the KWS, Linköping University, Ihub and a wide range of additional interested public and private sector partners, will design a gold standard wildlife protection technological system to serve as a pilot project. Stimson will conduct the project at the Ngulia Rhino Sanctuary in Kenya's Tsavo West National Park, which will demonstrate the positive impact that robust technological security and training systems can have on preventing poaching. The pilot project, which has been designed in close collaboration with rangers, officers, wardens and Tsavo leadership, will run over an initial two-year timeframe and in three phases: In the first phase, per the request of the rangers, officers, wardens and the senior leadership in Tsavo, pilot project partners will deploy a smartphone-based software platform that will serve as a first surveillance system. Rangers and officers will be the primary users of this platform that will serve as, inter alia, a tool for situational awareness throughout Ngulia. A team of trainers, monitors and evaluators will work closely with the Tsavo staff to fully understand the user experience and make adjustments as necessary to the platform and its functionalities. In a second phase, sensor systems will connect to that platform providing perimeter control, intrusion detection and wildlife monitoring. In the third phase, advanced network and radar technologies will be applied to provide an overview of a larger area and to detect large objects. Eventually, and if appropriate, unmanned aerial systems will hover over the Ngulia perimeter providing video and thermal imaging for all day surveillance of wildlife, intruder detection and rhino census. Linköping University will lead the technical expert and research team and be responsible for management and supervision of technical development and system integration. Ihub will assist in developing the software platform with responsibility for design, user interaction, training and support. Dr. Wafula Okumu, formerly with the African Union's border management team, will provide top-of-the line support and advice on African locally driven security capacity building, particularly as it pertains to border security. Stimson will also work with a wide range of other organizations in seeking to scale and replicate this pilot project beyond the Ngulia Rhino Sanctuary. Ngulia was chosen following consultations with the Kenya Wildlife Service in Tsavo. Stimson worked closely with rangers, officers and the park leadership in designing the aforementioned two-year plan. Ngulia spans ninety-two square kilometers, hosts about 10 percent of Kenya's black rhino population and is encircled by the much larger Tsavo West National Park. The rangers at Ngulia have military training, but are in need of more sophisticated technology

and training to protect the wildlife. It is important that the technology and training capacity building is not driven by the most sophisticated technology available, but by the needs and current status of the user, in other words the rangers and officers on the ground. In this light, our plan takes a bottom-up approach, focuses on the needs of the rangers, which we will work closely with throughout the project period, and subsequently will layer on additional technological and training capabilities as needed.

A specific timeline has been created along the below lines:

Phase 1 (12 months): Assemble a consortium of public and private actors that will form the core of the implementation team. Key members of this consortium to date includes Stimson, Linköping University, Ihub, regional experts, including Dr. Okumu, private sector technology providers and peer NGOs providing additional thought leadership. This consortium will grow to include other partners as the project progresses over the two year period. Stimson and its commitment partners will develop the software platform and deploy it in Ngulia. The cornerstone in the border security deployment plan is a Control, Command and Communication (C3) system in form of a smartphone app for the rangers and a desktop application for the officers. Functionalities in the software will include virtual sensors for motion: position, orientation, alerts (fall, haptic knocks, shot etcetera), text messaging, voice messaging, simple navigation interface, pointing out objects of interest (animals, footsteps, waterholes etcetera) with photo messaging. Ihub will work closely with the end user in a training and evaluation role and recommend adjustments as necessary. This system will result in a wide range of important information displayed in the software platform, including data tracking, shot detection and localization, a real time map, ranger alarms, footprints and the like. This C3 system can also be used to connect any sensor system relevant for border protection and conservation.

Phase 2 (12 months): Together with project partners and under the supervision of technical experts at Linköping University, Stimson will assist in facilitating the deployment of radar surveillance and sensor system for additional perimeter control preventing intrusion into the sanctuary. Specifically, one tower with radar could provide full area coverage for monitoring vehicles and people with rifles. Sensor system will detect human sound and footsteps within the park or at intrusion attempt. Additional surveillance systems, including airborne, will be added as appropriate and include both day and night surveillance of wildlife and intruder detection. Rangers, officers, wardens and other appropriate personnel will receive specialized training on these technologies by technology providers, as well as by our local team of user experience and border security experts. Advanced training systems, including scenario simulations and combat exercises will be conducted. This phase will also include monitoring and evaluating project and begin facilitation of scaling and replicating it elsewhere.

13. Beneficiaries

Who will benefit from the work outlined above? How will you monitor the benefits they accrue? If your project is working in an Upper Middle Income Country, please explain how benefits will be delivered to people living in poverty in Low and/or Low Middle Income countries. Include, where possible, information on whether and how there are ways to support the most vulnerable communities, including women.

(Max 750 words)

The Kenya Wildlife Service and affiliated law enforcement agencies are key targets for this project. Up to 100 rangers, officer, commanders and wardens will be directly impacted. Ultimately, of course, the pilot effort will yield a more effective approach to building a sustainable tourism sector whilst curbing illicit financial flows to transnational organized criminals and terrorist organizations in the region. This approach will meet multiple intersecting objectives in Kenya and East Africa more widely. Safeguarding the tourist-popular rhinos and other wildlife is critical as tourism represents 15 percent of Kenya's GDP and is one of few economic sectors in Africa, according to the World Bank, where women are well represented as employees and managers. As such, the project helps ensure economic opportunities for African women. There is also a growing body of evidence that suggests that transnational organized criminals and terrorist organizations are benefiting from the ivory and rhino horn train and, in turn, use the revenues to carry out attacks and conduct nefarious activities that hamper foreign direct investment, trade and other aspects critical for a flourishing Kenyan economy. A lack of security resulting from rhino poaching therefore inhibits poverty reduction and societal development.

14. Impact on species in focus

How will the species named in Question 10 above benefit from the work outlined above? What do you expect the long-term impact on the species concerned to be?

(Max 200 words)

The KWS has identified two key goals with its black rhino population by 2016: (1) grow the national black rhino population from 650 to 750 animals; (2) and, reduce rhino deaths from poaching to represent only one percent of the total loss. Stimson will facilitate the protection of the 60 black rhinos at Ngulia and work with the KWS to achieve its organizational goals. Following the successful deployment and execution of the Ngulia pilot project, it is clear that the rhino sanctuary is an ideal setting to become an academy for technology, training and education for KWS and other law enforcement services throughout Kenya. As such, the project will benefit a broader group of stakeholders beyond the project period. The pilot project at Ngulia could also be scaled and replicated throughout Tsavo and in other parks, providing protection for a much greater number of rhinos and other wildlife, and as such further KWS goals throughout Kenya. In this light, the project at Ngulia is part of a much broader initiative to protect, grow and repopulate the black rhino species.

15. Exit strategy

State how the project will reach a stable and sustainable end point, and explain how the outcomes will be sustained, either through a continuation of activities, funding and support from other sources or because the activities will be mainstreamed in to "business as usual". Where individuals receive advanced training, for example, what will happen should that individual leave?

(Max 200 words)

Unlike many existing "technology drop" approaches to wildlife preservation in the region, the Ngulia effort boasts indigenous roots. Conjured through a four-year deliberative interaction with the Government of Kenya, this "home-grown" approach to preservation has gained the sustainable buy-in of local participants. Throughout the successful deployment of the technology/training model at Ngulia, the sanctuary and its technical, training, educational and human resources will be leveraged as an academy for wildlife countertrafficking, and more broadly as a Center of Excellent for natural resource management for Sub-Saharan Africa. KWS rangers, commanders and researchers will be trained to share expertise on technology and operational skills existing in Ngulia via a train-the-trainer approach. The project will decrease costs for KWS at Ngulia and increase efficiencies while contextualizing cultural sensitivities by relying upon East Africans to train East Africans in subsequent phases of replication. As such, the KWS will be incentivized to invest in the maintenance of the system and the practices will become a business as usual activity for the KWS. For the same reason (cost-cutting and increased results to counter poaching and wildlife crime), the KWS will see value in investing in this system throughout Tsavo West and other parks. As such, the legacy of the project will continue to emerge beyond the initial project period. "Academy Ngulia" can also be a regional demonstrator environment for governments, multilateral organizations, NGOs and private industry to learn about locally driven capacity building in a wide range of fields beyond wildlife and environmental protection. Stimson is frequently asked to present this project to governments, multilateral organizations, peer NGOs and private industry as a leading example of how to bring together a wide range of partners, resources and knowledge as a force multiplier for wildlife protection and environmental sustainability. Most recently, a number of important international actors have requested that Stimson brief the project to large audiences in early 2015, including the U.S Congress, the Clinton Global Initiative and United Nations capacity building organs. This continued education and awareness-raising process will further enhance sustainability and replicability. Further, as noted throughout the project proposal, Stimson has included several local non-government bodies that can manage the project following the initial project period. These include, private sector actors, as well as NGOs located in Kenya. As such, Stimson aims to infuse the tools for a successful project and subsequently facilitate the full transfer of efforts to local players as appropriate. Throughout this project, Stimson will also work with a dozen of private sector firms, including ICT, telecommunications and security capacity builders that are struggling to engage with public sector actors in innovative public/private sector partnerships. At the end of the project period, a foundation for such partnerships will have organically emerged – through costumer education (KWS will know what they need in terms of technology and training) and market development (private sector organization will understand there is business opportunity to engage in projects on wildlife protection and

environmental security). This will generate a more robust and sustainable business relationship between KWS and private technology providers, which is fundamental for sustainability. Finally, Stimson has initiated discussions with a number of wildlife organizations, including Peace Parks and the African Wildlife Foundation, which have demonstrated interested in implementing the technology and training platform in their countries of interest, including Angola, Botswana, Namibia, Zambia, Zimbabwe and South Africa. The Stimson Center and other project partners will work systematically to facilitate the aforementioned themes furthering sustainability and legacy of the project.

16. Funding

16 a) Is this a new initiative or a development of existing work (funded through any source)? Please give details

(Max 200 words):

The Stimson Center has been involved in research and analysis on a wide range of security and development challenges in Eastern Africa since 2010. By the invitation of the KWS, Stimson now looks to apply those lessons to tangible efforts to counter poaching and wildlife crime. Stimson has conducted prospecting of technical plans and training since 2013 at Ngulia and now looks forward to operationalize these plans at the Ngulia Rhino Sanctuary.

16. b) Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work?

☒ **Yes** ☐ **No**

If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have been/will be made to co-operate with and learn lessons from such work for mutual benefits:

Several initiatives are underway throughout Africa regarding protection of national parks and wildlife sanctuaries. As previously noted, most of those projects rely on advanced technologies that are too advanced to be effective in the first phases, and unsustainable in subsequent phases of development. Our project is holistic and focuses on the user's current capabilities, namely the level of equipment and training rangers possess today. Specifically in Ngulia, the Zoological Society of London has a project focused on putting up cameras in the sanctuaries. Stimson has been in touch with ZSL and are working with them to incorporate existing efforts into the broader two-year plan.

16. c) Are you applying for funding relating to the proposed project from other sources?

☒ **Yes** ☐ **No**

If yes, please give brief details including when you expect to hear the result. Please ensure you include the figures requested in the Budget Spreadsheet as Unconfirmed funding**.**

Stimson has been awarded a $ grant from the Government of Australia to kick-start this project. SAAB Technologies have contributed $

Funding and budget

Please complete the separate Excel spreadsheet (also available at https://www.gov.uk/government/publications/the-illegal-wildlife-trade-challenge-fund) which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet.

NB: Please state all costs by financial year (1 April to 31 March) and in GBP. Budgets submitted in other currencies will not be accepted. Use current prices – and include anticipated inflation, as appropriate, up to 3% per annum. The IWT Challenge Fund cannot agree any increase in grants once awarded.

17. Co-financing

17 a) Secured

Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity, as well as any your own organisation(s) will be committing.

(See Guidance note 4.4)

Confirmed:

Linköping University is self-financing its involvement in the project over a 2-year-period and has also agreed to finance the software development and deployment as well as a number of direct costs associated with travel and the like. We are currently in discussions with a wide range of corporations interested in contributing technology and financial resources to the project. We have also been contacted by a wide range of wildlife organizations, corporations and multilateral organizations, including the World Bank and the United Nations, who we are engaged in conversation about financing opportunities. Development agencies are also fundraising targets. To facilitate this process, the project has also hired a person to solely work on securing additional resources as we move this project forward. We have deliberately not sought to secure the full amount up front as we want to make sure that the technology and training is appropriate for the local conditions before we make major procurement decisions. As previously noted, the Government of Australia has provided $ toward this project. SAAB Technologies have contributed $.

17 b) Unsecured

Provide details of any co-financing where an application has been submitted, or that you intend applying for during the course of the project. This could include co-financing from the private sector, charitable organisations or other public sector schemes.

Date applied for	Donor organisation	Amount	Comments

18. Value for money

Please describe why you consider your application to be good value for money including justification of why the measures you will adopt will secure value for money.

(Max 250 words)

The scope of this project is very large in scale, with project partners raising funds and in-kind contributions totalling a cost of around GBP. The total project cost to Stimson will be GBP. Without Stimson's leading role in this project, the partner organizations would not come together to collaborate and work together towards this greater project goal. Stimson plays the managing role and is essential to the effectiveness of the project activities. The total project budget, including in kind technology contributions and additional fundraising, is around $USD. The investment by the Government of the United Kingdom will therefore be greatly leveraged.

19. Ethics

Outline your approach to meeting the IWT's key principles for ethics as outlined in the guidance notes.

(See Guidance Note 3.11)

(Max 250 words)

The Stimson Center, its researchers, and affiliates, adhere to a strict code of ethics. First and foremost concerns are for the safety and well-being of all those involved in every aspect of the project. Stimson also uses Prior Informed Consent principles when engaging with partner communities.

20. Outputs of the project and Open Access

Please describe the project's open access plan and detail any specific costs you are seeking from the IWT Challenge Fund to cover this.

(See Guidance Note 3.12)

(Max 250 words)

All data sets and subsequent published documents will be made readily available for download via the Stimson Center website. Additionally, the final project report will be printed and distributed in hard copy to government officials,

policymakers, NGOs and other relevant stakeholders. Stimson is seeking funding for printing costs associated with this publication.

21. Project monitoring and evaluation

Logical framework

IWT Challenge Fund projects will be required to monitor (and report against) their progress towards their expected outputs and outcomes. This section sets out the expected outputs and outcomes of your project, how you expect to measure progress against these and how we can verify this.

This section uses a logical framework (logframe) approach. This approach is a useful way to take a logical approach to tackling complex and ever-changing challenges, such as tackling the illegal wildlife trade. In other words, it is about sensible planning.

Annex B in the Guidance Notes provides helpful guidance on completing a logical framework.

Impact

The Impact is not intended to be achieved solely by the project. This is a higher-level situation that the project will contribute towards achieving. All IWT Challenge Fund projects are expected to contribute to tackling the illegal wildlife trade and supporting poverty alleviation in developing countries.

(Max 30 words)
Reduce rhino poaching and the illegal trade in rhino horns with a view towards socio-economic development and human security in Kenya.

Outcome

There can only be one Outcome for the project. The outcome statement is the overarching objective of the project you have outlined. That is, what do you expect to achieve as a result of this project? The Outcome should identify what will change, and who will benefit.
There should be a clear link between the outcome and the impact.
This should be a summary statement derived from the answer given to Questions 13 and 14. (You may copy and paste the same answer as provided in Question 4 here).

(Max 75 words)The Kenya Wildlife Service, through technology deployment and training at the Ngulia rhino sanctuary, will have improved its ranger, commander and research force to protect the rhino population from poaching and more effectively combat the illegal trade in rhino horns. As a result, security will improve and Kenya's rhino population will grow, leading to increased levels of tourism and as such a more stable income stream for the local community around Tsavo West where Ngulia is

located. Under Academy Ngulia, the tech and training initiative will serve as a model for other national parks in Kenya and throughout Sub-Saharan Africa.

Measuring outcomes - indicators

Provide detail of what you will measure to assess your progress towards achieving this outcome. For each indicator, you should be able to state:

- What is the starting point
- What is the expected change
- What the end point will be
- When the change will be achieved

You may require multiple indicators to measure the outcome – if you have more than 3 indicators please insert a row(s).

Indicator 1	**Rangers will have the ability to collect and analyse poaching incident and intrusion data.** **Building a technological system that can clearly identify security threats toward Ngulia is a major part of the pilot project. Today, such a system does not exist (baseline). However, through surveying the animal database and interviewing staff at Ngulia since September 2013, the Stimson team estimates that at least five rhinos have been poached in the last few years and near monthly intrusion incidents are taking place (baseline).** **The monitoring of animals is currently based on a manual system and does not provide reliable data for poaching incidents and intrusions attempts. The C3S focusing on security capacity building at Ngulia, to be deployed starting January 2015, will allow for systematic and instant data collection at the sanctuary, which will provide for a more accurate baseline and, by September 2015, will result in rangers' ability to log 100 percent of poaching and intrusion incidents.** **It is important to keep in mind that a major problem that the overall pilot project seeks to solve is rangers, officers and commanders current inability to adequately generate reliable data from which they can alter their counter-poaching strategies.**
Indicator 2	**A zero poaching and intrusion rate will be achieved as a result of the technology deployment and staff training that the project provides.** **Building a technological system that can assist rangers and officers to deter and respond to poaching and intrusion attempts at Ngulia is a major part of the pilot project. Today, such a system does not exist (baseline). Protecting the sanctuary is based on patrols and the use of unsophisticated technology, including insecure communications technology. As previously noted, through research and interviews, Stimson estimates that at least**

	five rhinos have been poached in the last few years and near monthly intrusion incidents are taking place (baseline). With added sensor and radar technology, as well as with the help of additional training, by the end of the project period, January 2017, a zero poaching and intrusion rate will be achieved as a result of the technology deployment and ranger, commander and research staff training.
Indicator 3	**Approximately 35 rangers and officers at Ngulia will be trained on and will actively use the C3S and sensor and radar technology. Today, no such equipment and training are available to rangers (baseline). In addition, the Kenya Wildlife Service will be taking active steps to expand our security system beyond Ngulia and into the immediate intensive protection zone (4x the size of Ngulia), the broader Tsavo area and possibly to other locations within the country. Additionally, by the end of the project period, an additional 35 to 50 rangers and officers will be receiving the benefits of the technology and training.** **The success of our security model will also be generating interest in scaling and replicating it in other African countries that face poaching challenges, and will be on track to become the new gold standard for wildlife protection in the region. For example, Peace Parks have demonstrated interested in replicating our tech and training model to 10 of their countries of interest. However, for the purpose of this conclusion of this pilot project, Stimson aims to complete the protection of Ngulia, and subsequently see the beginning of scaling the project to the intensive protection zone around Ngulia, which measures four times the size of Ngulia.**

Verifying outcomes

Identify the source material the IWT Challenge Fund (and you) will use to verify the indicators provided, and the progress made towards achieving them. These are generally recorded details such as publications, surveys, project notes, reports, tapes, videos etc. You should submit evidence of these with your annual reports.

Indicator 1	**Surveys and feedback from KWS personnel in Ngulia.**
Indicator 2	**Analysis of the data collected through C3S, sensor and radar systems, as well as KWS records in annual reports and the like. Independent sources, such as media reports, will also be used.**
Indicator 3	**The KWS, Peace Parks and the African Wildlife Foundation have demonstrated interest in scaling and replicating this technology and training system. Stimson will work closely with these organization to verify this indicator.**

Outcome risks and important assumptions

You will need to define the important assumptions, which are critical to the realisation of the *outcome and impact* of the project. It is important at this stage to ensure that these assumptions can be monitored since if these assumptions change, it may prevent you from achieving your expected outcome. If there are more than 3 assumptions please insert a row(s).

Assumption 1	**KWS is eager to adopt new methods and frameworks to combat poaching**
Assumption 2	**If the implemented technology and processes perform as planned it will serve as a deterrent to poachers**
Assumption 3	**Ngulia and Kenya have the capacity to continue training and border protection after the project completion**

Outputs

Outputs are the specific, direct deliverables of the project. These will provide the conditions necessary to achieve the Outcome. The logic of the chain from Output to Outcome therefore needs to be clear.

If you have more than 3 outputs, insert a row(s). It is advised to have less than 6 outputs since this level of detail can be provided at the activity level.

Output 1	**Today, there is no reliable or secure communications system in the Ngulia rhino sanctuary. By September 2015, Ngulia's 40 rangers, commanders and research staff will be equipped and trained with a smartphone- and tablet based command, control and communication system (C** **Verifying outcomes** **S).**
Output 2	**Today, there is no surveillance system in Ngulia rhino sanctuary to identify and locate intrusion by poachers. By January 2017, a sensor and radar system will be deployed and Ngulia's 40 rangers, commanders and research staff trained to use it in conjunction with the C^3S for parimeter control.**
Output 3	**Final project report that is accessible and publicly available**

Measuring outputs

Provide detail of what you will measure to assess your progress towards achieving these outputs. You should be able to state:

- What is the starting point
- What is the expected change
- What the end point will be
- When the change will be achieved

You may require multiple indicators to measure each output – if you have more than 3 indicators please just insert a row(s).

Output 1	
Indicator 1	**Deployment and a fully functioning C^3S, including hardware and software applications**
Indicator 2	**Ngulia rangers are properly trained on the new technology**
Indicator 3	**Project team is gathering data on improved ranger ability to safeguard the sanctuary**

Output 2	
Indicator 1	**Installation of sensor and radar technology**
Indicator 2	**Appropriate personnel are trained and equipped to utilize sensor**

	and radar surveillance technology
Indicator 3	**Sensor/radar systems are fully functioning to provide full area coverage**

Output 3	
Indicator 1	**Report is published and available**
Indicator 2	
Indicator 3	

Verifying outputs

Identify the source material the IWT fund (and you) can use to verify the indicators provided. These are generally recorded details such as publications, surveys, project notes, reports, tapes, videos etc.

Indicator 1	**Data is collected on ranger use of C3 system**
Indicator 2	**Interviews are conducted with guards and wardens on the perceived changes to border security**
Indicator 3	**Data is gathered from regional partners and other rhino sanctuaries in the area**

Output risks and important assumptions

You will need to define the important assumptions, which are critical to the realisation of the achievement of your outputs. It is important at this stage to ensure that these assumptions can be monitored since if these assumptions change, it may prevent you from achieving your expected outcome. If there are more than 3 assumptions, please insert a row(s).

Assumption 1	**Project partners are capable and fully committed to the project through its completion**
Assumption 2	**Ngulia infrastructure is prepared to handle the installation of all new systems**
Assumption 3	**The equipment is sensitive enough to develop good working data**
Assumption 4	**Reaching the full budgetary needs of the project, including possibility of procuring advanced technology beyond the initial deployment of software.**

Activities

Define the tasks to be undertaken by the project to produce the outputs. Activities should be designed in a way that their completion should be sufficient and indicators should not be necessary. Risks and assumptions should also be taken into account during project design.

Output 1	
Activity 1.1	**Organize meeting of the implementation team**
Activity 1.2	**Project lead, Bergenas, coordinates with Ihub and Linköping to develop software system**

Activity 1.3	**Bergenas works with project partners on installation of the new system**

Output 2	
Activity 2.1	**Organize meeting of the implementation team**
Activity 2.2	**Bergenas coordinates with Linköping technical experts to determine best placement of necessary sensors/radar**
Activity 2.3	**Project lead advises on the training of KWS rangers to incorporate best practices of border security**

Output 3	
Activity 3.1	**Collection of data from ranger use of C3 system**
Activity 3.2	**Monitoring and evaluation of the project through site visits and conducting interviews with key personnel**
Activity 3.3	**Analysis of various data and writing of a final project report**

22. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project.

Activity	**No of**	**FY 1**		**FY 2**			**FY 3**
	Months	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**
Output 1	4						
1.1	1	**Organize meeting of the implementation team**					
1.2	1	**Project lead, Bergenas, coordinates with Ihub to develop software system**					
1.3	2		**Bergenas works with project partners on installation of the new system**				
Output 2	6						
2.1	1			**Organize meeting of the implementation team**			
2.2	2			**Bergenas coordinates with Linkoping technical experts to determine best placement of necessary radar**			

2.3	3		**Project lead advises on the training of KWS rangers to incorporate best practices of border security**		
Output 3	6				
3.1	1			**Collection of data from ranger use of C3 system**	
3.2	1			**Monitoring and evaluation of the project through site visits and conducting interviews with key personnel**	
3.3	4				**Analysis of various data and writing of a final project report**

23. Monitoring and evaluation plan (M&E)

Describe, referring to the indicators above, how the progress of the project will be monitored and evaluated, making reference to who is responsible for the projects M&E.

IWT Challenge Fund projects will need to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact.

(Max 250 words)

As project coordinator, Johan Bergenas will conduct monitoring and evaluation of the project concurrently, through site visits as well as receiving feedback from all partners on the use of new technologies and the situation on the ground at Ngulia. As necessary, adjustments will be made to incorporate the various evaluations and status of project goals.

FCO notifications

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise the project's success in the IWT Fund in the host country. ☐

Please indicate whether you have contacted your Foreign Ministry or the local embassy or High Commission (or equivalent) directly to discuss security issues (see Guidance Notes) and attach details of any advice you have received from them.

Yes (no written advice) ☐ **Yes, advice attached** ☐ **No** ☒

Certification

On behalf of the trustees/company* of
(*delete as appropriate)
I apply for a grant of £ in respect of **all expenditure** to be incurred during the lifetime of this project based on the activities and dates specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.
(*This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)*

- I enclose CVs for project principals and letters of support.
- Our most recent signed audited/independently verified accounts and annual report are also enclosed/can be found at:

Name (block capitals)	
Position in the organisation	

Signed		Date:	

Checklist for submission

	Check
Have you **read the Guidance Notes**?	Yes
Have you provided **actual start and end dates** for your project?	Yes
Have you provided your **budget based on UK government financial years** i.e. 1 April – 31 March and in GBP?	Yes
Have you checked that your **budget is complete**, correctly adds up and that you have included the correct final total on the top page of the application?	Yes
Has your application been **signed by a suitably authorised individual**? (clear electronic or scanned signatures are acceptable, but not the use of a script font)	
Have you included a **1 page CV for all the Project Staff** identified at Question 9, including the Project Leader?	Yes
Have you included a **letter of support from the main partner(s) organisations** identified at Question 8?	Yes
Have you included a signed **copy of the last 2 years annual report and accounts** for the lead organisation? An electronic link to a website is acceptable.	Yes
Have you **checked the IWT website on GOV.UK** immediately prior to submission to ensure there are no late updates?	Yes

Once you have answered the questions above, please submit the application, not later than midnight GMT on 6 August 2014 to IWT-Fund@LTSI.co.uk using the first few words of the project title **as the subject of your email**. If you are e-mailing supporting documentation separately please include in the subject line an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). You are not required to send a hard copy.

DATA PROTECTION ACT 1998: Information supplied in the application form, including personal data, will be shared between the Department and LTS for administration, evaluation and monitoring purposes. Some information, but not personal data, may be used by the Department when publicising the IWT Challenge Fund including project details (usually title, lead organisation, location and total grant value) on the GOV.UK and other websites. Personal data may be used by the Department and/or LTS to maintain and update the IWT Challenge Fund mailing list and to provide information to British Embassies and High Commissions so they are aware of UK Government–funded projects being undertaken in the countries where they are located.

ENVIRONMENTAL INFORMATION REGULATIONS 2004 and the FREEDOM OF INFORMATION ACT 2000: Information (including personal data) relating to the project or its results may also be released on request, including under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality nor will we act in contravention of our obligations under the Data Protection Act 1998.