

Ronin the rat sets new landmine detection record

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A landmine-detecting rat in Cambodia has set a new world record to become the first rodent to uncover more than 100 mines and other deadly war remnants.

Ronin, an African giant pouched rat, has detected an impressive 109 landmines and 15 unexploded ordnance (UXO) items since his deployment to Preah Vihear province in August 2021. This achievement surpasses the previous record set by the legendary Hero Rat Magawa, who identified 71 landmines and 38 UXOs during his five-year service.

Ronin's work is far from finished. At just five years old, he may have two years or more of detection work ahead of him, continuing to build on his already record-breaking total, said the Anti-Personnel Mines Demining Product Development (APOPO).

"Ronin's achievements are a testament to the incredible potential of positive reinforcement training. He's not just an asset; he's a valued partner and colleague," said Phanny, Ronin's handler.

Ronin's remarkable detection skills are the result of meticulous training built entirely on positive reinforcement. Ronin was born

and raised in Morogoro, Tanzania, at APOPO's Training Center located at Sokoine University of Agriculture.

From a young age, he was introduced to clicker training, where he learned to associate the sound of a click with a tasty treat like bananas or peanuts. This reward-based system motivates Ronin to identify the scent of explosives accurately. His training also involves working systematically within a grid pattern attached to a line, indicating landmines by scratching at the ground.

The Guinness Book of World Records said that Ronin's "crucial work" is making a real difference to people who have had to live with the "fear that one misstep while going about their day-to-day lives could be their last."

Ronin, who is currently five years old, is described as being "hardworking but also friendly and relaxed" Programme Manager of APOPO, Michael Raine said yesterday, "What truly sets Ronin apart is not only its exceptional detection skills but its consistency, focus, and remarkable work ethic over time. While all of our rats are trained to a high standard, Ronin has surpassed expectations in terms of the area covered and the number of mines located."

He added that Ronin will receive a

well-deserved retirement filled with enrichment, care, and attention from the handlers who have supported its journey.

"We also plan to recognise its achievement more formally — whether through internal celebrations, public acknowledgment, or storytelling that highlights its incredible contribution to saving lives," he added.

The rats are trained to sniff out chemicals that are found in landmines and other weapons abandoned on battlefields. Because of their small size, the rats are not heavy enough to detonate the mines.

The rats can check an area the size of a tennis court in about 30 minutes, the charity says, whereas a human with a metal detector might take four days to clear the same land.

Heng Ratana, Director General of the Cambodian Mine Action Center, said that the operations of mine-detecting dogs and rats are quite similar.

"In terms of technique, the work of both dogs and rats is similar. However, rats are lighter, eat less, and are easier to transport. On the other hand, in terms of working hours, dogs work longer than rats, and faster, more efficient, and can detect more mines than rats," he said.

Ronin has achieved the distinction of being the most successful mine detection rat in the organisation's history. APOPO



Since Apopo's work began 25 years ago, the organisation has cleared 169,713 landmines and other explosives worldwide — more than 52,000 have been in Cambodia. The charity also works in other countries affected by war, including Ukraine, South Sudan and Azerbaijan.

According to the Landmine Monitor 2024, decades of conflict have left Cambodia contaminated with an estimated four to six million landmines and other unexploded munitions, posing ongoing threats to civilians. Since 1979, these hidden dangers have caused approximately 20,000 deaths and 45,000 injuries. While demining efforts have reduced casualties to 49 reported incidents in 2024, the risk remains significant. ■

KINGDOM OF CAMBODIA NATION RELIGION KING



INVITATION FOR BIDS(IFB)

(The Ministry of Health of the Royal Government of Cambodia)
The Establishing the University of Health Sciences Teaching Hospital Project
EDCF Loan Agreement No.: KHM-23
IFB NO. MOH/PMU/KHM-23/ICB/GO-01



Date: APRIL 7, 2025

- The Government of the Kingdom of Cambodia has received a Loan from the Export-Import Bank of Korea ('Bank') from the resources of the Economic Development Cooperation Fund (EDCF) of the Republic of Korea in the amount of Sixty Six Million Five Hundred Seventy One Thousand US Dollars (USD 66,571,000) toward the cost of 'The Establishing the University of Health Sciences Teaching Hospital Project ('Project')' and a portion of the proceeds of this loan is allocated with intention to apply to payments under the contract for the supplying Medical Equipment & HIS for "The Establishing the University of Health Science Teaching Hospital Project."

- The Ministry of Health of the Royal Government of Cambodia (the 'MOH') now invites sealed bids from eligible bidders for the following the Procurement for the supplying Medical Equipment & HIS for "The Establishing the University of Health Science Teaching Hospital Project."

This Invitation for Bids is open to bidders who is a single entity or combination of entities in the form of a joint venture or association/consortium (JVA) or single entity, which shall cover the role of Medical Equipment & HIS supply under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent.

- Bidding will be conducted through Competitive Bidding (CB) procedures specified in the Guideline for Procurement under EDCF Loans and is open to all eligible bidders that meet the following minimum qualification criteria. The details about qualification criteria are described in Section III Evaluation and Qualification Criteria.
- This Bid is 'Single-Stage, Two-Envelope' method. Detailed procedure is described and defined in Section I. Instructions to Bidders of PART I - Bidding Procedure.

A. Eligible Bidders for All Suppliers are:

- Nationals of the Republic of Korea (including juridical persons incorporated in the Republic of Korea in accordance with its law; hereinafter the same shall apply)
- Bidder's last three [3] years (2021, 2022, 2023) average and last year net worth calculated as the difference between total assets and total liabilities should be positive, respectively. (Each partner in the JVA must meet the requirement).
- A bidder in bankruptcy status and a Corporate Re-Organization Proceeding is prohibited from bidding for this project (Each partner in the JVA must meet the requirement);
- All pending litigations shall be treated as resolved against the bidder and so shall in total not represent more than fifty percent (50%) of the bidder's net worth of the year 2023. (Each partner in the JVA must meet the requirement);
- The Bidders have a certificate or letter of commitment from reputed banks to the effect that the bidder has financial resources/access to a credit line or cash flow, which the Medical Equipment suppliers at least USD 1,000,000.00 (One million US dollars) and HIS suppliers at least USD 500,000.00 (Five hundred thousand US dollar).For JVA, the leading company must meet 60% of the total requirement, and the sum of all partners combined should meet one hundred percent [100%] of the requirement.
- The annual net profit shown on audit report or Certificates issued by Korea government (NTS) of the Bidder shall be positive for at least two (2) out of the last three (3) years' (2021, 2022, 2023). Each partner must meet the requirements.
- The Bidder must demonstrate that it has the personnel for Project Manager, Medical equipment Manager, HIS Engineer for program and Hardware. The more details about its qualification criteria are specified in Section III. Evaluation and Qualification.

B. Eligible Bidders for Medical Equipment Suppliers are:

- Average annual turnover for the last three [3] years (2021, 2022, 2023) shall be more than US\$ 9,000,000 [Nine Million US Dollars] calculated as total certified payments received for the contracts in progress or completed. Each partner must meet the requirements.

- The At least one [1] similar Medical Equipment projects* in or outside of bidder's country of origin, with minimum contract amount US\$5,000,000 [Five Million US Dollars] completed in the last three [3] years prior the bid issuing date. At least one partner in the medical equipment JVA must meet the requirements.

* In this document "similar Medical Equipment project(s)" means the medical equipment supply project which is including delivery, installation, training, and warranty of medical equipment which coincides with not less than 20% of the number of Manufacturer's Authorization required medical equipment with same purpose and function listed in this project. In the case of medical furniture and medical consumable items will not be counted.

C. Eligible Bidders for HIS Suppliers are:

- Average annual turnover for the last three [3] years (2021, 2022, 2023) shall be more than US\$9,000,000 [Nine Million US Dollars] calculated as total certified payments received for the contracts in progress or completed. In case of a JVA, the leading company of the JVA must meet Sixty percent [60%] of the requirements, and the sum of all partners combined should meet one hundred percent [100%] the requirements.

- The At least one [1] similar HIS projects* in or outside of bidder's country of origin, with minimum contract amount US\$ 500,000 [Five hundred thousand US Dollars] that have been successfully completed in the last Ten [10] years prior the bid issuing date. At least one partner in the HIS JVA must meet the requirement.

* In this tender document "similar HIS project" means the project including development, delivery, installation, training, and warranty of Hospital Information System, excluding the project with a partial scope of equipment supply, maintenance without a HIS software supply, and/or system interface work, and 'HIS' includes OCS (Order Communication System), EMR (Electronic Medical Record) and MIS/ERP (Management Information System/Enterprise Resource Planning)

- Interested eligible Bidders may obtain further information from The Ministry of Health (the 'MOH') and inspect the bidding documents at the address below from 09:00 to 16:00 hours in working days of the Kingdom of Cambodia.
- A complete set of bidding documents may be purchased by any interested Bidders on the submission of a written application to the address below and upon payment of a nonrefundable fee of US\$ 300. The method of payment will be cash only. The Bidding document will be available from **Monday 7th of April 2025**.
- The original and all copies of the bid, including both hard copies and soft copies with non-rewriteable CDs or Stick (USB) memory, must be delivered or hand-carried to the address below at or before **2:30 PM, Thursday 22nd May 2025**.
- All bidders must submit a Bid Security at the amount of US\$ 455,820. The Bid Security shall be valid for twenty-eight (28) days beyond the original validity period of the bid. Late bids shall be rejected. Bids will be opened and videotaped in the presence of the Bidder's representatives who choose to attend. The Purchaser is to give further notice confirming the date and place for pre-bid meeting and bid opening (Technical, Price).
- The Ministry of Health will not be responsible for any costs or expenses incurred by Bidders in connection with the preparation or delivery of Bids.
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Name of Office: University of Health Sciences, Ministry of Health

Attention: H.E. Dr. YOUK Sambath, Secretary of State and Project Director, Ministry of Health.

Address: #73, Preah Monivong Blvd., Sangkat Sras Chak, Khan Daun Penh, Phnom Penh, Cambodia.

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