

# Revitalizing and strengthen the capacity of cancer management in Cambodia: Past-Present and future involvement of multi-stakeholders.

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# INTRODUCTION

Cambodia:

Population : 16 millions

Territory : 181,035 km<sup>2</sup>



Oncology Department reopened in 2003 in the demand under the support of MoH and French NGOs (PMSF and CSF) => a Cobalt machine was installed, human resources.

After 10 years of operation with Cobalt 60, a proposal for New LINEAR ACCELERATOR (LINAC) in 2013 supported by MoH and the World Bank and ready to be used in 2016.

Recently in January 2018: New National Cancer Center was inaugurated.

PMSF: Physicien Médical Sans Frontière, CSF: Cancérologue Sans Frontière



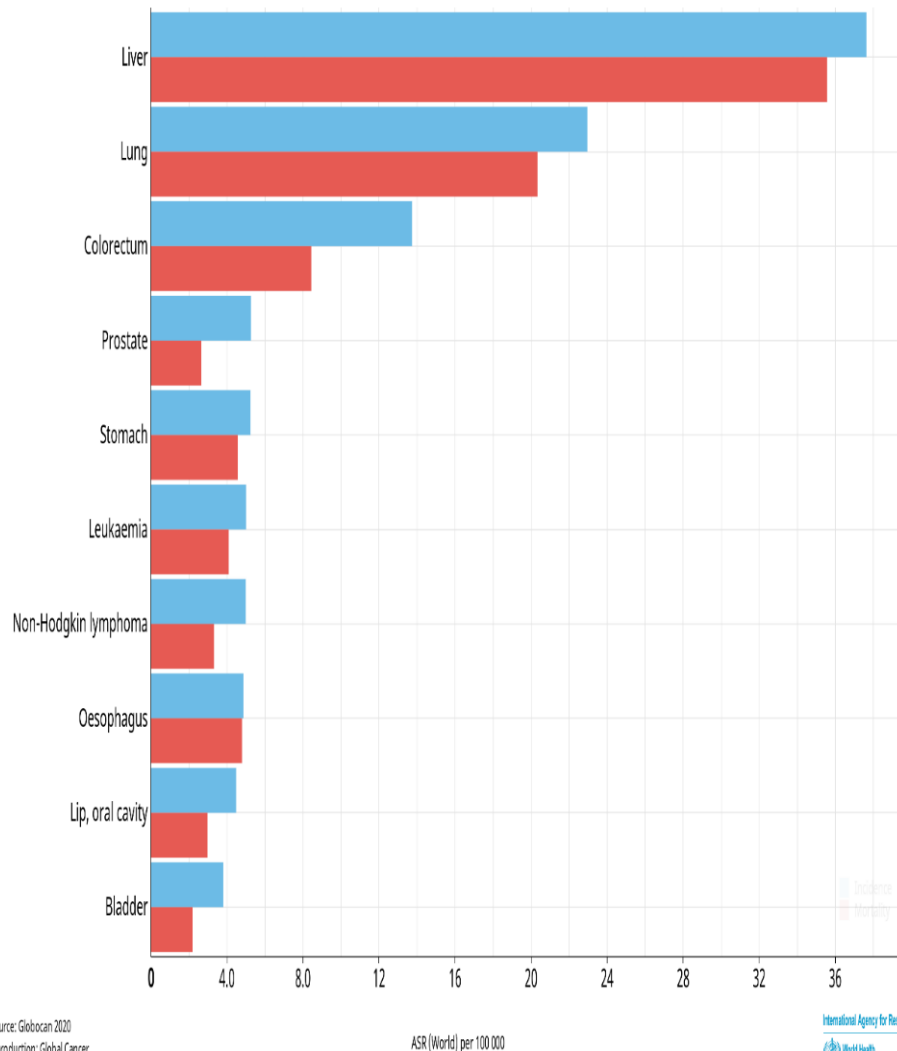
# INCIDENCE AND MORTALITY RATES OF CANCERS IN CAMBODIA (GLOBOCAN 2012 TO GLOBOCAN 2018)

1. Due to remarkable increase in number of new cancer cases vs treatment facilities (around 15,000 new cases per year. Only around 15%-20% who could access to the treatment in the country.

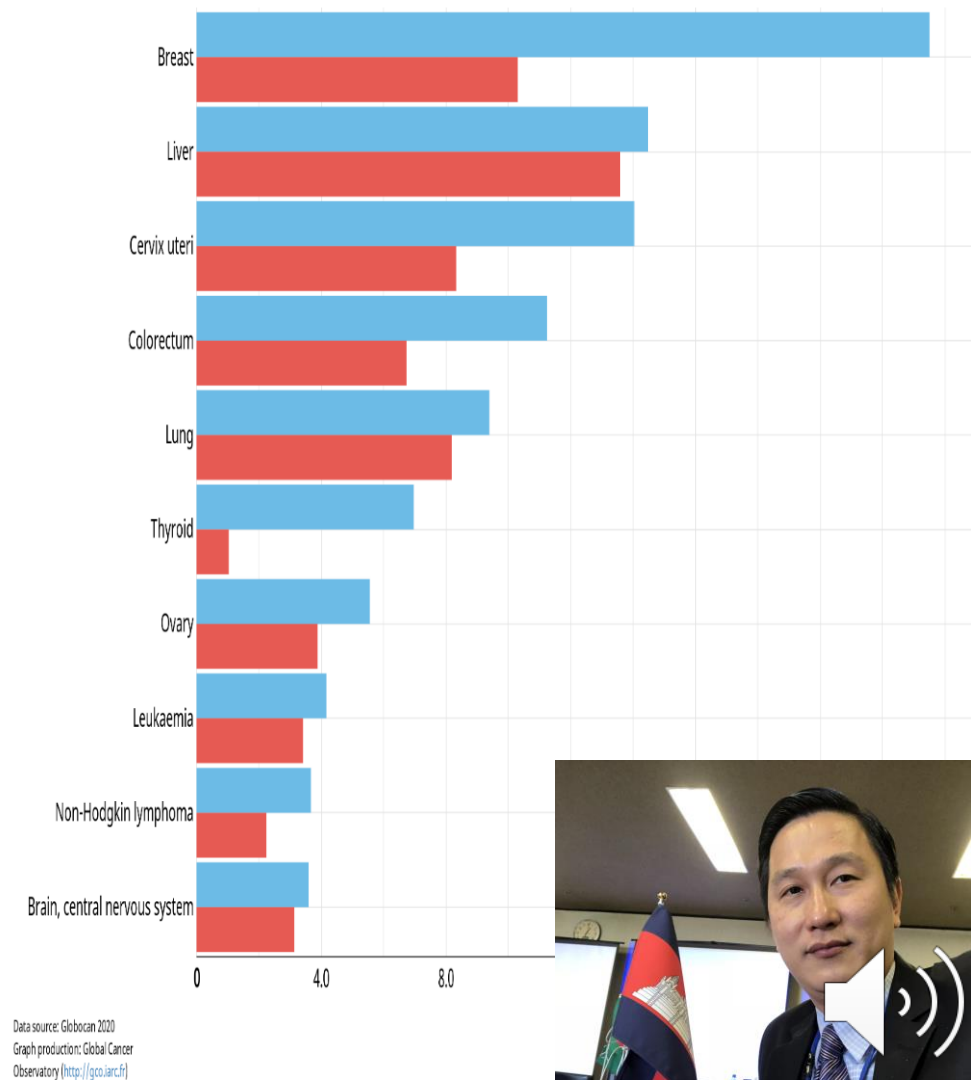
2. Challenges in term of facilities, human resources.

3. Budget allocation and technical cooperation.

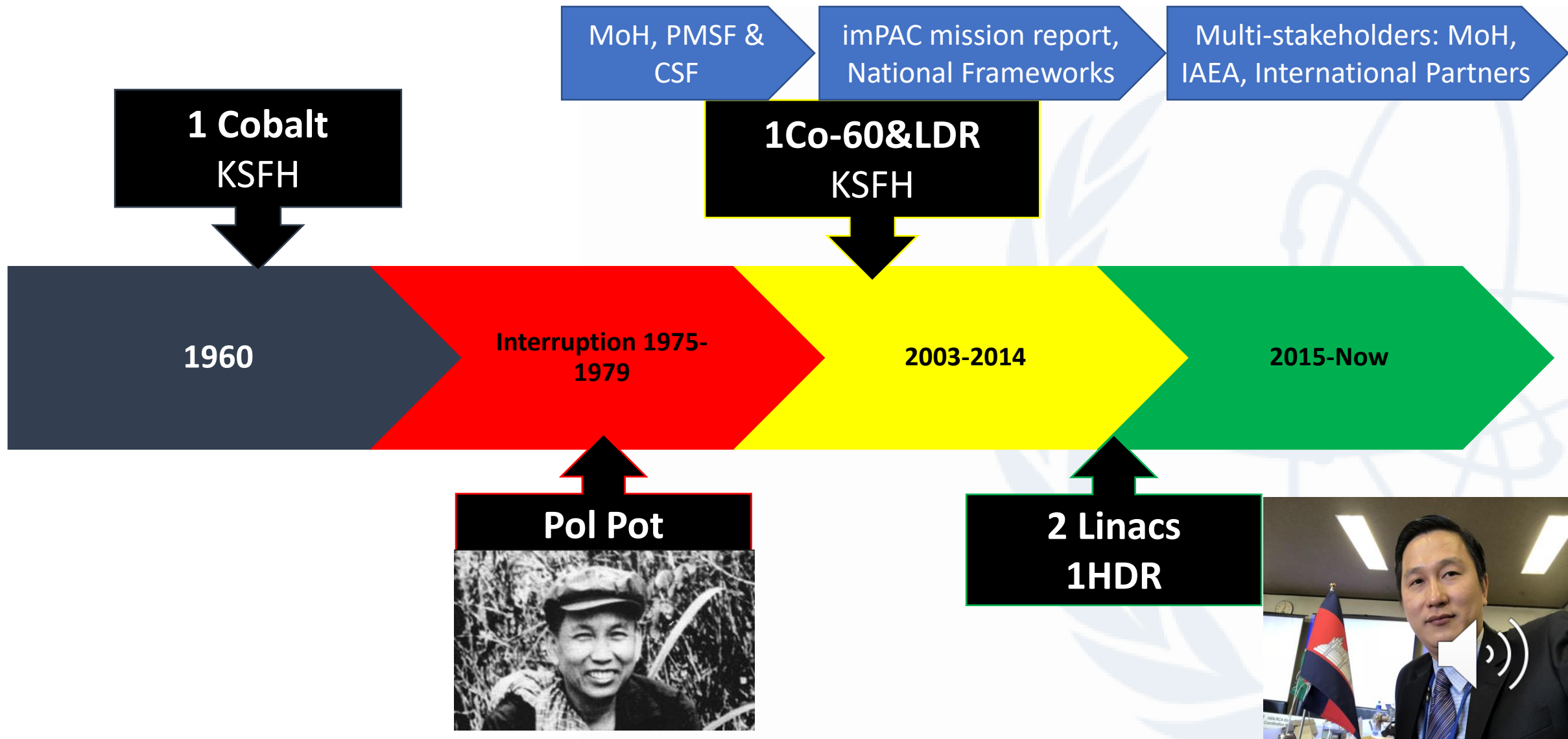
Estimated age-standardized incidence and mortality rates (World) in 2020, Cambodia, males, all ages



Estimated age-standardized incidence and mortality rates (World) in 2020, Cambodia, females, all ages



# A Brief History of Radiotherapy in Cambodia





# COBALT TELETHERAPY IN KSFH INSTALLED UNDER THE SUPPORT OF MINISTRY OF HEALTH WITH COOPERATION BETWEEN PHYSICIEN MÉDICAL SANS FRONTIÈRE (STARTED IN 2003 UNTIL 2015)

- Number of New cases of cancer patients has been increasing significantly since the re-opening of the Oncology department since 2003 till now (around 700 cases to more than 1800 cases per year) at Khmer-Soviet Friendship Hospital.
- Number of radiotherapy treatment has also been increasing with imbalance between demand vs supply every year => 2nd Health Sector Support Project => LINAC



2D Contouring and simulation



2D Dosimetry and calibration



Dose Delivery with Cobalt 60





# First 3D RADIATION THERAPY INSTALLED AT THE END OF 2015 AT KHMER-SOVIET FRIENDSHIP HOSPITAL



World Bank Delegates



Inauguration and grand opening of 1<sup>st</sup> Linac in Cambodia by H.E Minister of Health





# NATIONAL CANCER CENTER AT CALMETTE HOSPITAL INAUGURATED IN JANUARY 2018

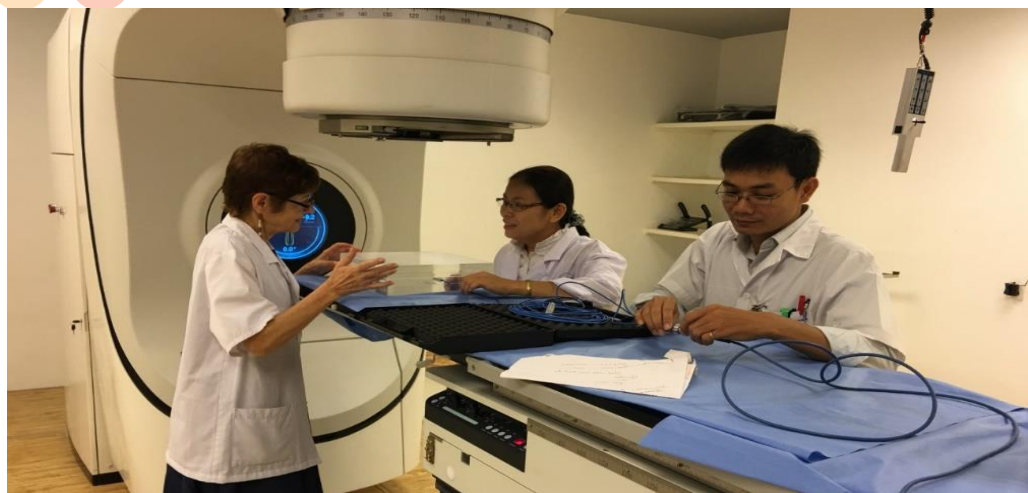


Inauguration of new National Cancer Center by Samdach P.M





# ACTIVITIES OF PHYSICIEN MÉDICAL SANS FRONTIÈRE (PMSF) AND THE IAEA AT KHMER-SOVIET FRIENDSHIP HOSPITAL (KSFH)



Hélène Aget, Current President of PMSF on the mission for training young Cambodian Physicists after the installation of new Linear Accelerator in 2016



National Liaison Officer (Cambodia), Program Management Officer (IAEA) and KSFH director meeting



On the job-training of PMSF mission for new Linac in 2017



Brandon Healy, IAEA technical Officer, visiting Radiotherapy team during PMSF technical aids in 2018







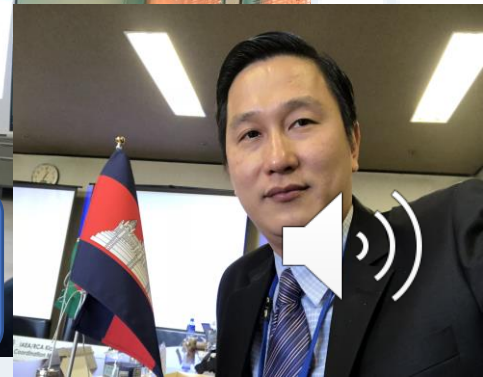
PMSF meeting in 2018 for preparing projects in Developing countries (esp: Cambodia, Laos...)



KSFH and PMSF team at Linac KSFH, Cambodia in 2016



Mentorship and Protocol Setting up at Oncology Department of KSFH for Standard Practical Guidelines for Specific cancer sites by Radiation Oncologist of PMSF and IPC





# SUPPORTIVE MISSION KAM6001/6002 WITH THE TECHNICAL TEAM FROM APROSIG AT CALMETTE HOSPITAL

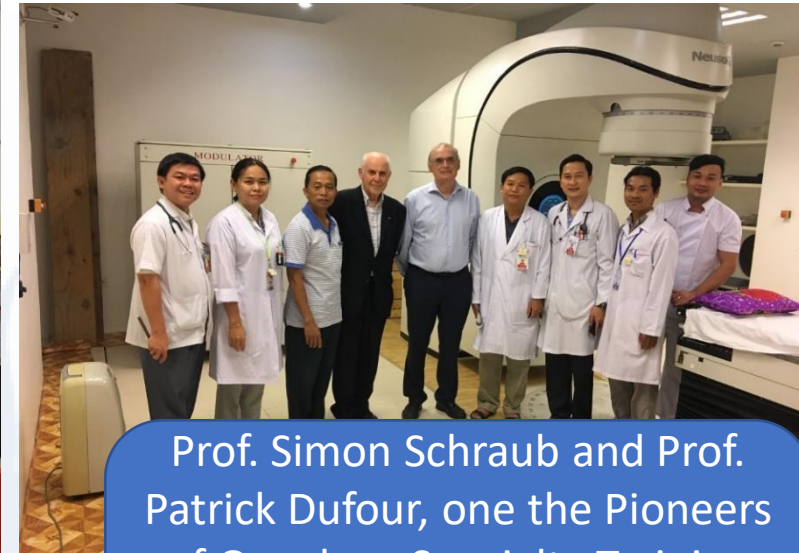


APROSIG activities with On-the-job training and Technical support  
for Calmette team





# HUMAN RESOURCES ENRICHMENT THROUGH INTER-UNIVERSITY COOPERATION AND INTER-HOSPITALS (MOSTLY WITH FRENCH UNIVERSITIES)

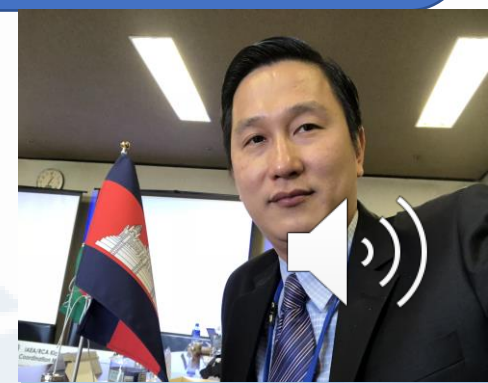


Prof. Simon Schraub and Prof. Patrick Dufour, one the Pioneers of Oncology Specialty Training (Fellowship Program from Strasbourg, France) in Cambodia

MoU between KSFH and Institut Paoli-Calmettes (France) for Human Resources Development and technical support. Prof. NGY Meng (KSFH Director) and Prof. Patrice VIENS (Director General of IPC).



Residency program in Oncology with cooperation between Cambodian and French Universities



# Current situation of Human resources

- Around 30 Oncologists has been trained and working in the main 2 centers for the whole countries (mostly done fellowship in Strasbourg and Marseille, Montpellier through Inter-Universities cooperation).
- Amount them are 11 Radiation Oncologists:
  - 9 Residents done fellowship in France (ICANs “previously Centre Paul-Strauss”-Strasbourg, IPC-Marseille, Montpellier)
  - 2 graduated Residents done fellowship in the Philippines (by the IAEA-TC projects).
- 4 Medical Physicists (with master degrees) : 2 trained from France, 2 from Malaysia. And 1 more will start the Master degree in Malaysia by the project KAM6003.





# PERSPECTIVES

- **At KSFH:**
  - 1 more LINAC project planned from hospital.
  - 1 HDR Brachytherapy also in the planning of hospital project.
- **The Cancer Center-Calmette Hospital:**
  - At 2 more LINACs will be operational (in 5 year planning)
  - Diagnostic imaging: PET-Scan, MRI...
- **Human Resource development:**
  - Oncologists “Med Onc, Rad Onc, Hemato (MoU with ICANS-University of Strasbourg, and IPC-University of Marseille, Institute de Cancer-Montpellier, IAEA funding Project KAM001-KAM6002-KAM6003)
  - Medical Physicists, Dosimetrists, Radiation Technologists with future possibilities of local curriculum (French Medical Physicists without Border, IAEA–TC projects, APROSIG “RANZCR”).
- Extension of regional cancer centers: at least 3 more regional centers in the future.





# THANK YOU (OR KUN)

Angkor Wat in Siem Reap



Royal Palace



KAMPOT

Natural Volcano lake



Floating houses on Tonle Sap River



National Museum



French Protectorate-Style Market  
Since 1910, Phnom Penh

