

Improving cancer management in a resource limited setting

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Radiotherapy in cancer care

RADIOTHERAPY

- SAFE
- COST EFFECTIVE
- NECESSARY



More than half of all patients with cancer will require radiotherapy...

RADIOTHERAPY

50%

- SAFE
- COST EFFECTIVE
- NECESSARY



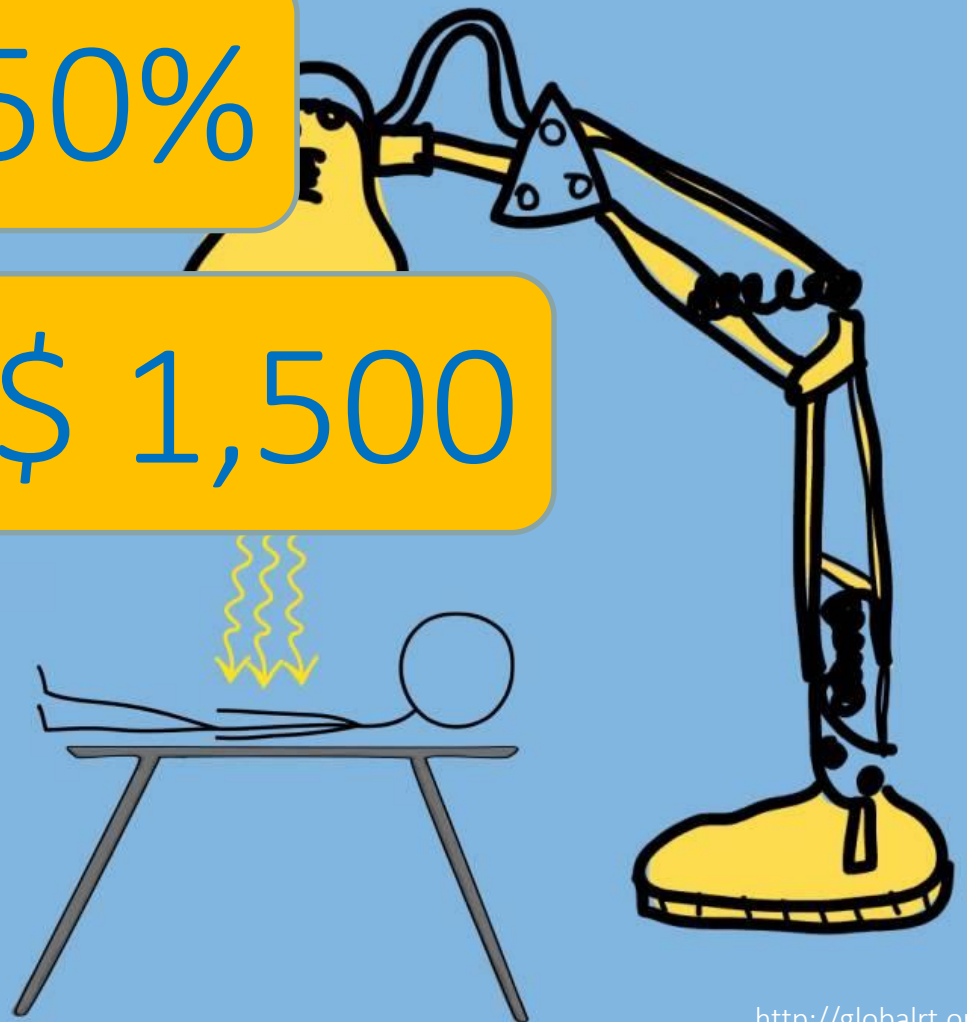
More than half of all patients with cancer will require radiotherapy...

RADIOTHERAPY

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50%

< \$ 1,500



More than half of all patients with cancer will require radiotherapy...

RADIOTHERAPY

50%

- SAFE
- COST EFFECTIVE
- NECESSARY

< \$ 1,500

40% of cured cases



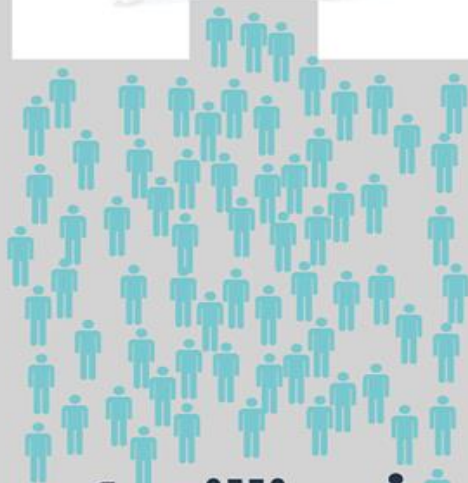
Radiotherapy in Cancer Care

In high income countries



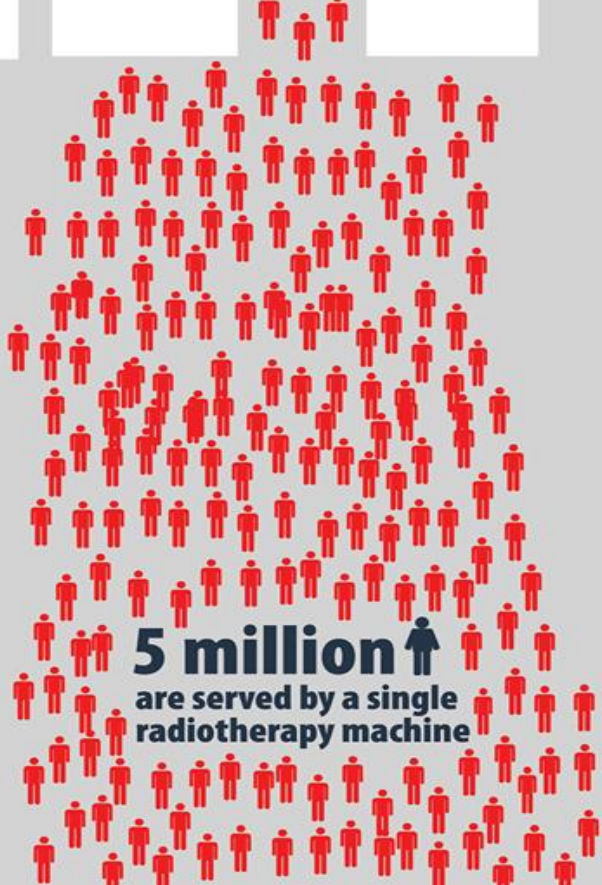
120,000 ↑
are served by a single
radiotherapy machine

In middle income countries



1 million ↑
are served by a single
radiotherapy machine

In low income countries



5 million ↑
are served by a single
radiotherapy machine

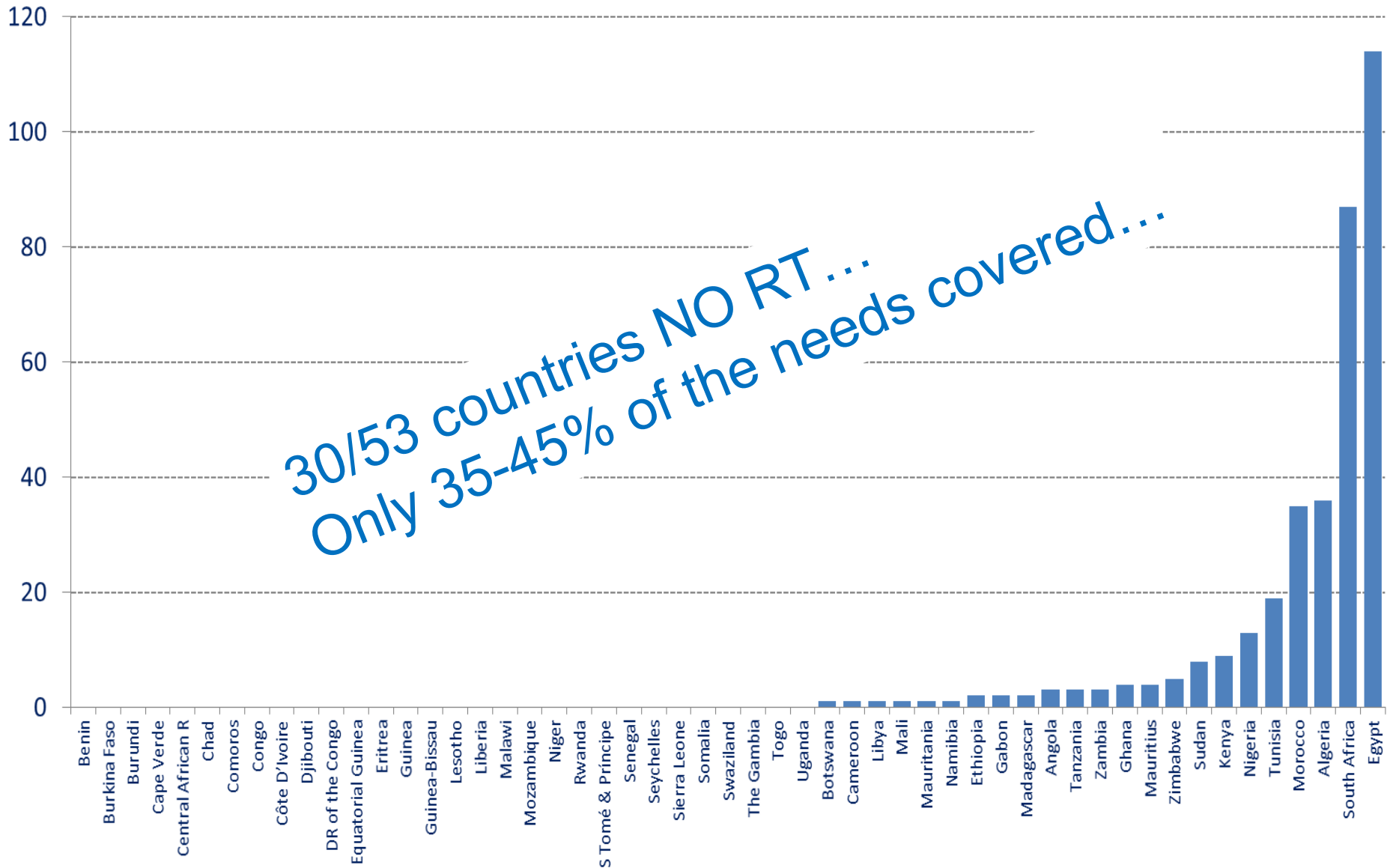
The global scenario...

	LIC	L-MIC	U-MIC	HIC	World
% countries No RT	77%	22%	7%	2%	22%
Access-coverage % (12hs working day)	5%	41%	70%	98%	79%
Mv/million	0.69	0.94	1.91	7.59	2.37
GNI/capita US\$	638	2,023	8,222	42,020	10,783
Exp. health/c US\$	61	106	416	4,345	920

...and the problematic area

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RT in Africa (2017)

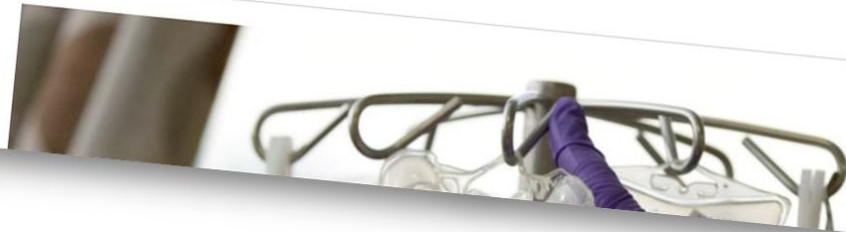


RT in Africa (2017)



Accueil > Texte
SITUATION SCANDALEUSE : Une seule vieille machine de radiothérapie contre le cancer au Sénégal

La seule machine de radiothérapie est en panne en Ouganda



Global Access to Radiotherapy Services: Have We Made Progress During the Past Decade?

Yap, Zubizarreta, Bray, Ferlay, Barton. JGO 2016

Brunei	Asia	H	272
Burkina Faso	Africa	L	3,700
Burundi			
Central African Republic			
Chad			
Congo			
Congo (Kinshasa)			
Cote d'Ivoire			
Djibouti			
Equatorial Guinea			
Eritrea			
Fiji			
Guam			
Guinea	Africa	L	2,442
Guinea-Bissau	Africa	L	402
Haiti	Caribbean	L	4,091
Honduras			

occurs. In LICs and LO-MICs, the small increase in MVMs in the last decade has lagged behind the greater increase in cancer numbers, leading to an increase in the gap in services. The majority of LICs have no radiotherapy services available at all.

ence in case mix. It is likely that retreatment rates also vary significantly because of these differences in case mix. Our findings demonstrate a substantial increase in the number of MVMs globally. In LICs and LO-MICs, the small increase in MVMs in the last decade has lagged behind the greater increase in cancer numbers, leading to an increase in the gap in services. The majority of LICs have no radiotherapy services available at all. Our RTU estimates are conservative because they were not adjusted for the different distributions of stages at cancer presentation in each country. Pa-



RT in Zambia 2002-2007

- ✓ \$5.6 million loan from the OPEC Fund for International Development
- ✓ Construction and procurement of equipment
- ✓ Whole RT team trained in South Africa

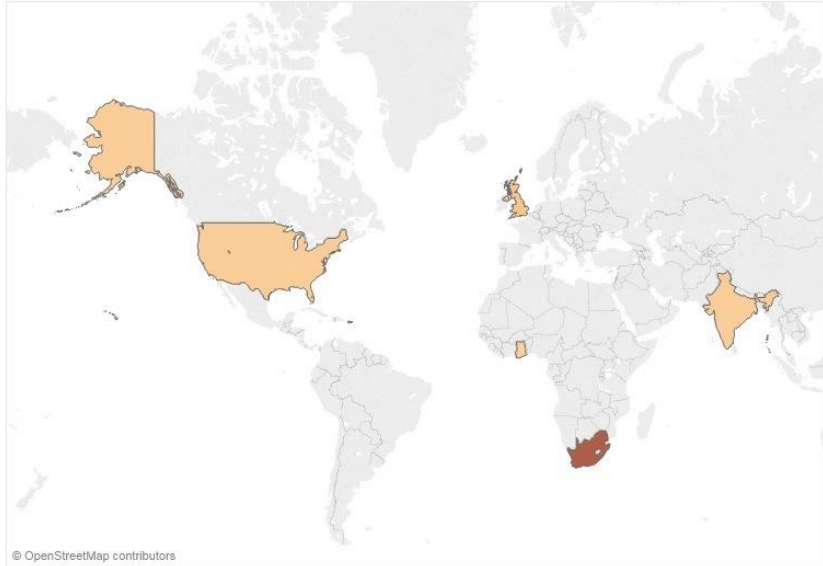
RT in Zambia 2002-2007-2017

- ✓ \$5.6 million loan from the OPEC Fund for International Development
- ✓ Construction and procurement of equipment
- ✓ Whole RT team trained in South Africa
- ✓ Expansion of the RT department and oncology centre
- ✓ Establishment of local training for RTTs and ROs
- ✓ Plan for additional expansion and additional RT centres (Mpika and Kitywe)



Why local training is essential?

Host Country Map

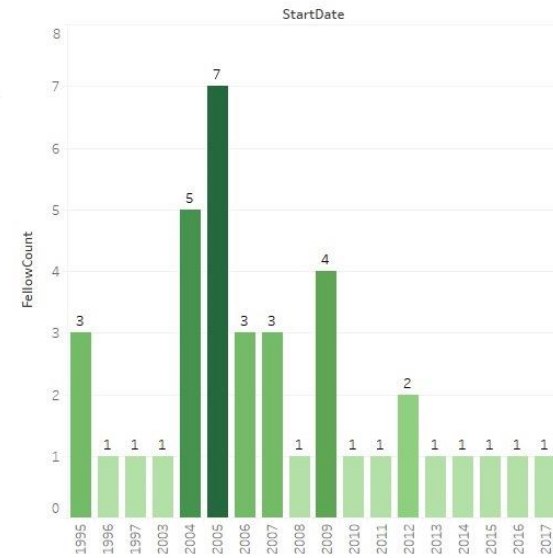


Host Country



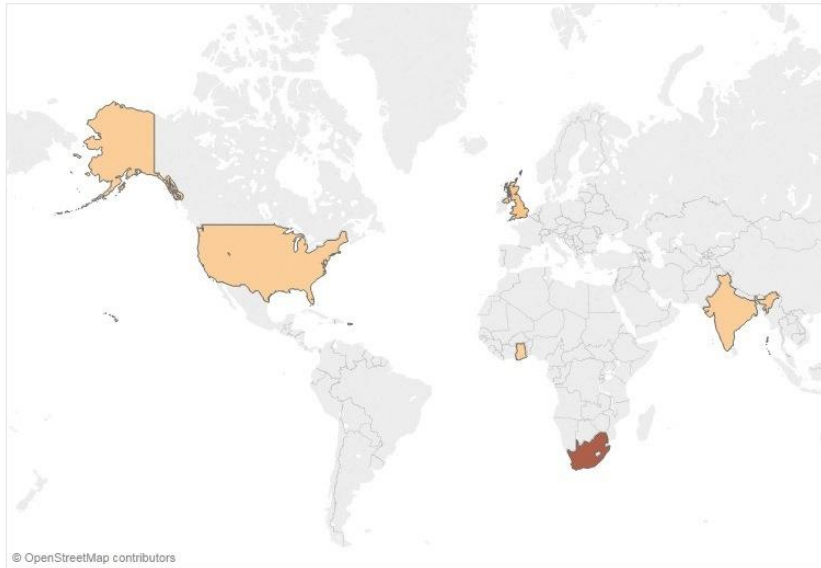
Cost (abroad)
 € 50-68k
 per professional/year

FellowsPerYear



Why local training is essential?

Host Country Map

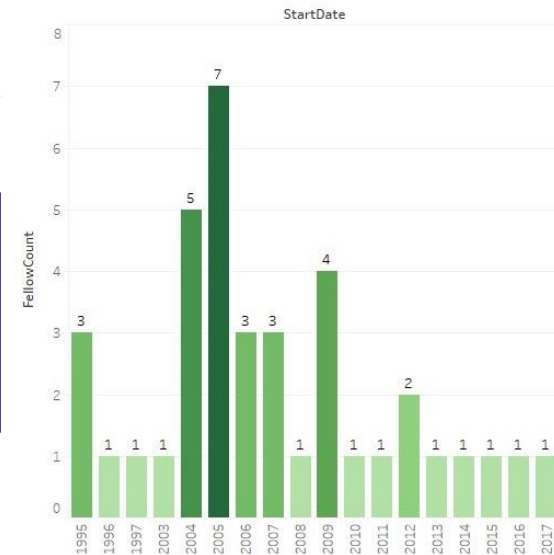


Host Country

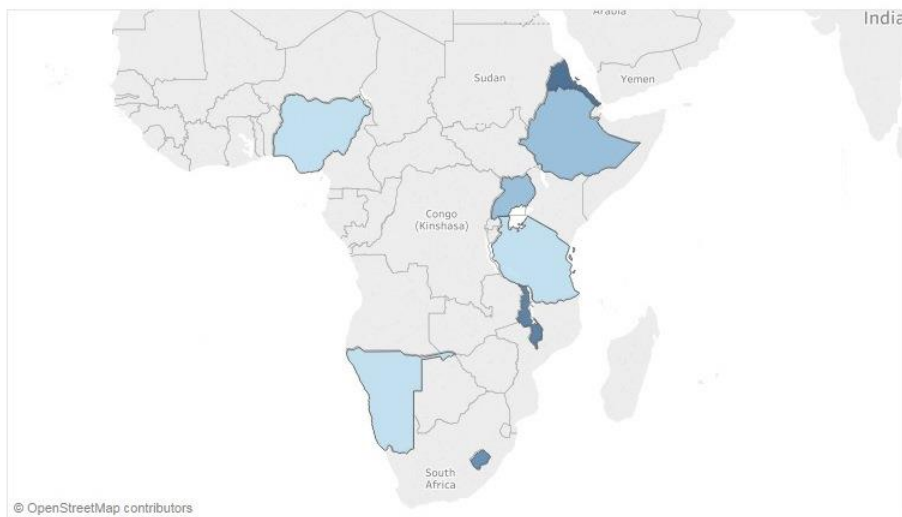


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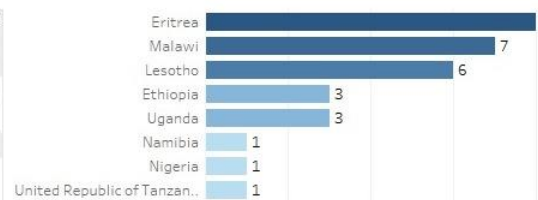
FellowsPerYear



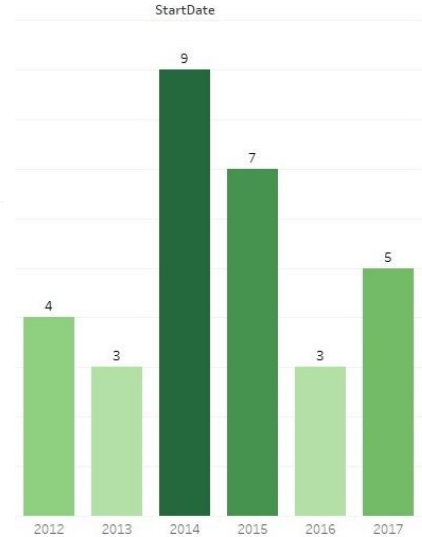
Fellow Home Country Map



Fellow Home Country



StartDate



In conclusion: what is needed?

- ✓ Political stability
- ✓ Governmental commitment
- ✓ Medium term plan
- ✓ All trained professionals retained
- ✓ On-site training
- ✓ Maintenance contracts