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**Human Resources Development for Rooppur  
Nuclear Power Programme in Bangladesh**

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# Background Information

- ❑ Bangladesh has begun its preparations for nuclear power in the 1960s and Rooppur Nuclear Power Plant (Rooppur NPP) Project site was selected in 1963;
- ❑ The progress never passed the activities related to preparatory stage of construction;
- ❑ A resolution for immediate establishment of NPP to combat existing power crisis was passed by the National Parliament in 2010 ;
- ❑ Power System Master Plan 2010 of Bangladesh Government indicates that Bangladesh Government wants to introduce 2000 MWe of nuclear power by 2020;

# Objective

- ❑ To review the present educational and training system of Bangladesh and its capability to contribute in the nuclear power program;
- ❑ To analyze the measures needed to restructure the current educational system that will accommodate the nuclear science and technology education properly in a sustainable manner;

# Workforce for the “Rooppur NPP”

- ❑ Present manpower of “Rooppur NPP” Project is about 55 with 28 professionals-
  - Project Planning & Contract Negotiations: 7
  - Siting and Development: 9
  - Nuclear Technology: 7
  - International Coordination & HRD: 5

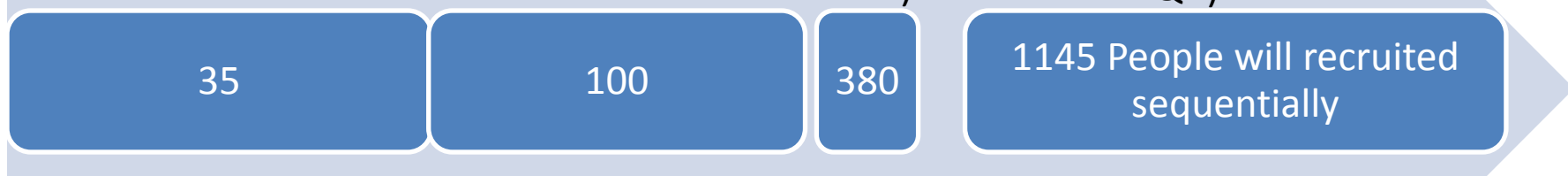
# Proposed Workforce Distribution of Rooppur NPP

2009                      2012                      2013                      2014                      2015                      2016                      2017                      2018                      2019                      2021

Zero point for starting of NPP (O&M Personnel)

Erection 90% (O&M, QA)

All testing 100% (O&M)



**Preparatory Construction Phase**

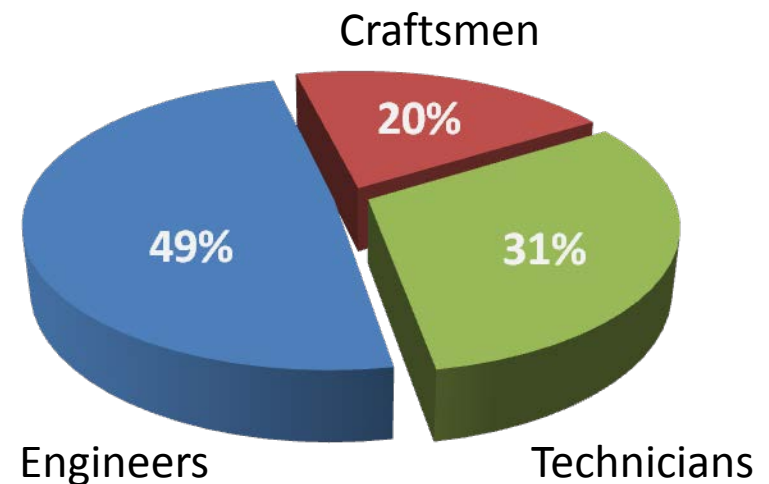
**Main Construction phase**

1660

# Proposed Workforce Distribution of Rooppur NPP

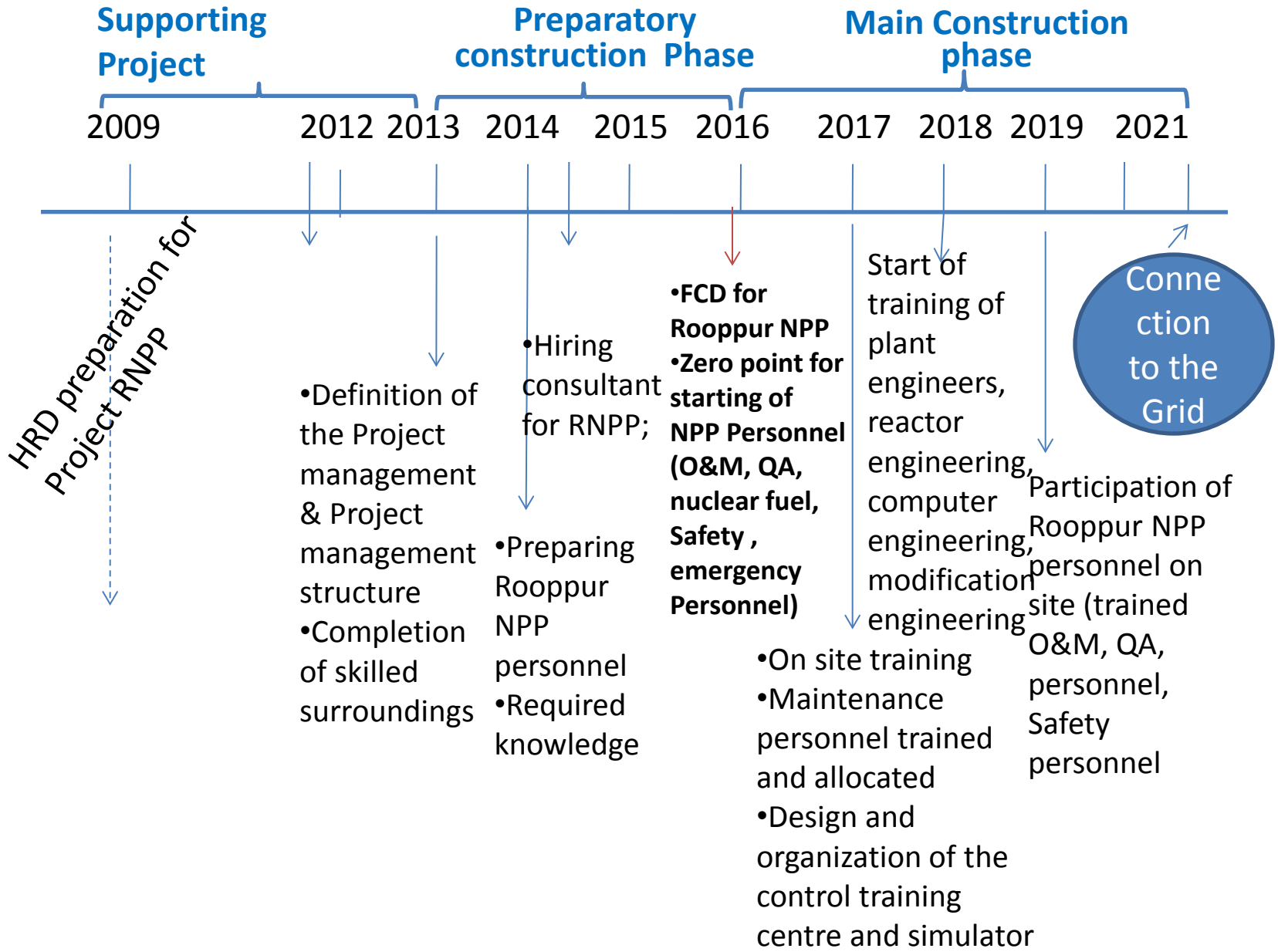
In the OS, category-wise distribution of **1048 Technical Workforce** has been proposed as follows:

☐ Qualified Professionals	: 513 (49%)
☐ Technicians/ Technologist	: 325 (31%)
☐ Craftsman	: 210 (20%)
<hr/>	
<b>TOTAL</b>	<b>: 1048 (100%)</b>



Structure of NPP Personnel  
(the Case of Russian Federation)

# Workforce Planning for Rooppur NPP



# Status of Nuclear HRD Program

- ❑ BAEC has a good number of professionals in various branches of nuclear technology;
- ❑ The Core Manpower for preparatory activities of the Rooppur Nuclear Power project is available in BAEC;
- ❑ A dedicated group of professionals is working for the regulatory body;
- ❑ Fresh professionals for Rooppur NPP and the nuclear regulatory body will be available from the General Universities, Universities of Engineering and Technology and Technical Institutions from their annual out put;
- ❑ A training Institute under BAEC has been established to train the professionals in the field of nuclear technology. Presently this institute offers fundamental courses on nuclear technology to the junior professionals of BAEC;
- ❑ The appointment of fresh professionals for preparatory stage construction of “Rooppur NPP” and “Regulatory Body” are in



# Status of Nuclear HRD Program

- ❑ The Government has taken initiatives to strengthen infrastructure for education and research in nuclear science and technology and major universities have been instructed in this regard;
- ❑ A couple of universities in the country are taken initiatives to open nuclear engineering courses, mostly in the post-graduate level.
- ❑ Dhaka University has started Nuclear Engineering department for graduate and post graduate level.



# Status of Nuclear HRD Program

- ❑ A leading technical university (a public univ.) of the country **BUET** (Bangladesh University of Engg. & Technology) is also working to start NE courses at different levels.
- ❑ BRAC university (a private univ.) has signed MoU with BAEC for joint collaboration in the area of nuclear science & technology education.
- ❑ Technical Institutions (Polytechnic and Vocational) located in Dhaka is being requested to introduce appropriate courses on nuclear energy;

# Possible Resources for “Rooppur NPP” Program

Institutions		NPP related annual intake	Rooppur NPP Needs
Universities	Public-34	~7000	513
	Private-52		
Polytechnic /Diploma	Public-50	~10000	325
	Private-180		
Secondary vocational	Public-155	~1000000	210
	Private-1800		
Higher Secondary vocational	Public-64	~10000	

# Conclusions

- ❑ Bangladesh faces a huge challenge in implementing the Rooppur NPP and its total nuclear power;
- ❑ A preliminary assessment has been chalked out a plan to find out methods that can be applied to find out our gaps and then fill them up;
- ❑ Bangladesh seeks cooperation from the Russian Federation in the form assistance package like National training courses, Seminar/Workshop, Expert Mission/Review and other form of bilateral arrangements in establishing infrastructure for “Rooppur NPP” building;

# The End

**Thank you for your  
kind attention !**