



THE ROLE OF UNIVERSITAS GADJAH MADA IN FORMING PUBLIC'S PERCEPTION ABOUT NUCLEAR IN INDONESIA THROUGH COMMUNITY EMPOWERMENT PROGRAMS

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The plan to build Nuclear Power Plant in Indonesia has been sounded since 1956, but it has always been postponed until now. One of the reasons why it cannot be realized is because the public in Indonesia has misperception about nuclear technology. The information about nuclear technology is still very limited in Indonesia, although the technology has been used in health and agriculture fields. There are some reasons why this misperception occurs. The first reason is insufficient introduction about nuclear chapter to our students in formal schools below university level. The second is there are different levels of understanding between people who live in urban and rural areas. This condition is very unique and specific because Indonesia is an island country. These two main reasons are the most contributing aspects that affect people's perception about nuclear in Indonesia. This poster exposes innovative ways in educating people about nuclear program in Indonesia. Universitas Gadjah Mada, having the only one Nuclear Engineering Program in Indonesia, has a program which is called community empowerment programs. These programs could be used for disseminating nuclear technologies and nuclear applications in schools, rural communities, urban communities and scientific communities. These programs promote nuclear dissemination through several ways which are suitable with the participant's education level. After the programs were carried out, an observation was taken to see the people's opinions about it. Several activities that have been done resulted in increasing the people's knowledge about nuclear technology, including safety and security aspects.

KEYWORD :
Role of university, Public's perception, Community empowerment

NOMENCLATURE
NPP : Nuclear Power Plant
BATAN : National Nuclear Energy Board
BAPETEN : Nuclear Energy Regulatory Agency
PNS : Partnership for Nuclear Security

INTRODUCTION

Nuclear technology has been introduced in Indonesia since 1954. In 1980s, Indonesia government had planned to build the first NPP in Muria area, Central Java but this plan was discontinued due to the protest from anti-nuclear group. According to Presidential Decree No.7/2005, the first NPP was planned to start construction in 2010 and start operation in 2016 in order to supply 2% of the national energy demand. But, the plan was postponed again due to the activities from anti-nuclear group.

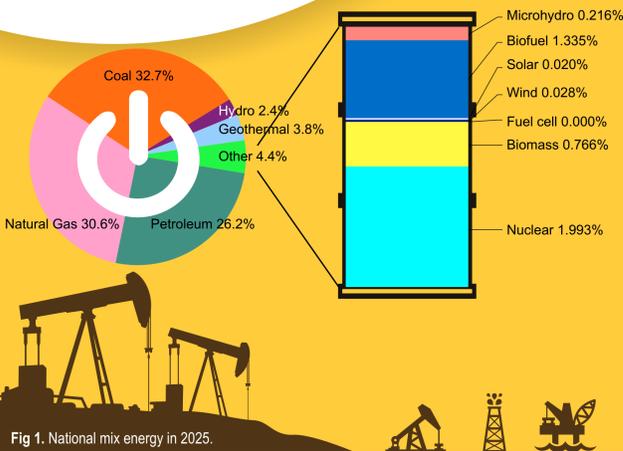
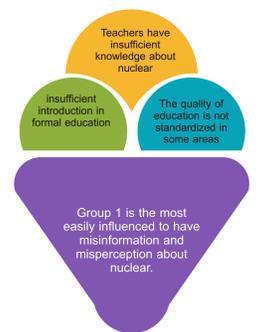
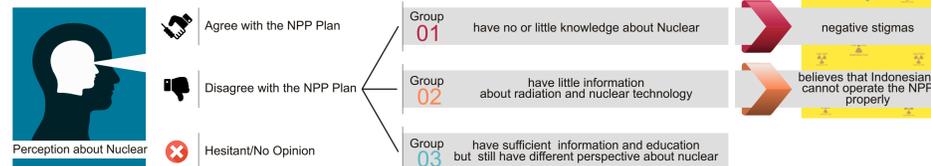


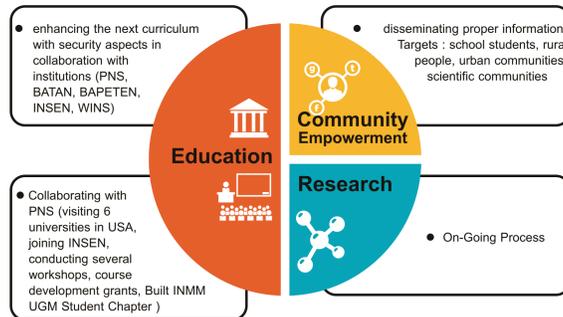
Fig 1. National mix energy in 2025.

PERCEPTION ABOUT NUCLEAR IN INDONESIAN PEOPLE'S MINDSET



ROLE OF UGM IN FORMING PUBLIC PERCEPTION ABOUT NUCLEAR

Three Missions as An Academic Institution



PROVIDE EXCELLENT HUMAN RESOURCES THROUGH ENHANCING THE NEXT CURRICULUM WITH SECURITY ASPECTS

(in collaboration with PNS, BATAN, BAPETEN, INSEN, WINS, Texas A&M, University of Tennessee of Knoxville, King's College London)



Nuclear Engineering Faculty members delegation attended PNS Curriculum Development Workshop: Sharing and Applying Best Practices in Abu Dhabi UEA
several trainings related to the nuclear security attended by non-nuclear background people: The Professionals Development Course (PDC)
Workshop on Enhancement of Nuclear Engineering Curriculum with Nuclear Security Subjects in Yogyakarta, Indonesia for Nuclear Engineering and Hospital Staff
Nuclear Engineering delegation attended INSENS meeting

SEVERAL WAYS TO PROMOTE NUCLEAR THROUGH COMMUNITY EMPOWERMENT

1. STRATEGY FOR STUDENTS

School Visit

- using games methods and role playing : safety and security in NPP, the risks and the benefits of nuclear application
- Held in Yogyakarta and Madura Island
- Result: increased knowledge about nuclear

Faculty visit

- using simulation method : information about nuclear including safety and security
- Result : better knowledge about nuclear

2. STRATEGY FOR RURAL PEOPLE

(In Collaboration With Indonesia Ministry of Education, Indonesia Agricultural Department and BATAN)

- Introducing a farming intensification method using nuclear technology
- Introducing the first grade rice seed, yielded from irradiation technology
- Giving simple and brief explanation about irradiation + coaching program
- Result: Sidenuk seed gave more produce and bigger rice + Farmers realized that nuclear is not dangerous

3. STRATEGY FOR URBAN COMMUNITIES, using routine big event in Universitas Gadjah Mada Area

- simple games and art activities to attract attention
- several small exhibitions (NPP safety and security system, nuclear application in medical, farming and industrial fields)
- using games to introduce nuclear safety and security information.
- The testimonies of increased information were written on the exhibition wall.

4. STRATEGY FOR SCIENTIFIC COMMUNITIES :

- attended several scientific seminars and conferences (supported by PNS)
 - Nuclear Engineering Faculty Members attended INMM 2014 in USA
 - INMM UGM students chapter delegation attended INMM conference
- INMM UGM student chapter's programs managed by Students (in collaboration with PNS)
 - INMM UGM student chapter delegation attended a meeting in INMM conference
 - Webinar about nuclear security with experts from overseas universities
 - Student's Workshop about Physical Protection Introduction and Nuclear Security Management
- Conducting some nuclear security workshops for Front-Line Officers in two big harbors and also for policy makers in nuclear areas (in collaboration with BAPETEN)

CONCLUSION

The public's perception about nuclear in Indonesia are divided into three groups which are the pro nuclear, the contra nuclear and the group with no opinion. The contra-nuclear group is divided into three categories : The agree with NPP Plan, The disagree with NPP Plan and The hesitant/ have no opinion at all. It is clear that the pro and contra-nuclear groups do not have the same criteria. So it is a problem of technology dissemination and it needs innovations to overcome this problem, so people will have proper information about nuclear. Community empowerment programs from Universitas Gadjah Mada play an important role in disseminating better and balanced information. Several activities that have been done resulted in increasing the people's knowledge about nuclear technology including safety and security aspect.

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