

JICA Research Institute

# **News** etter

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#### Hot Issue

## Striving for Equality: Women, Education and the Islamic World

JICA-RI Research Fellow Takako Yuki has launched a new project to address challenges in education and gender equality, both of which are important Millennium Development Goals. Analyzing Yemen's situation, the project attempts to draw policy implications toward the realization of these goals in the country and elsewhere.



Yemen has made progress in education and gender equality.

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#### **Review**

### Analyzing the Connection between Ethnic Diversity & Market Behavior through Simulation

JICA-RI and Kobe University are conducting a research project aimed at determining correlations between ethnic diversity and economic performance. Taking three Kenyan ethnic groups as test subjects, a market simulation experiment attempts to uncover the mechanisms in which ethnic diversity impacts economies and, in particular, economic stability.

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#### **Review**

## Envisioning Myanmar Economic Development

Through JICA's networks developed and data accumulated over years of assistance to Myanmar, JICA-RI is conducting a study on the development of the country's economy. Konosuke Odaka (pictured left), Hitotsubashi University professor emeritus, and his research team are exploring the direction of Myanmar's socio-economic development while taking into account historical background and political conditions. **READ MORE** 

#### **Review**

### Analyzing the Effects of Greenhouse Gas **Reduction in Development Projects**

The findings on adaptation measures from the JICA-RI project "Adaptation to and Mitigation of Climate Change in Developing Countries" will soon be published as a policy brief and book. The next phase of the project will focus on mitigation measures. This study will involve empirical analysis on the effects of GHG reduction in JICA infrastructure projects such as in the construction of coal-fueled power plants. **READ MORE** 

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# Striving for Equality: Women, Education and the Islamic World

Among the Millennium Development Goals set by the United Nations for 2015, one aims to achieve universal primary education for boys and girls alike, while another promotes gender equality and empowerment of women. Despite these aspirations, many countries are at risk of not achieving these goals. JICA-RI has recently launched a research project to examine in detail one such country to consider means of meeting these challenges.

JICA-RI Research Fellow Takako Yuki is examining the regional differences, changing attitudes and behaviors within Yemen to address these problems – threats to sustainable growth – and to establish links between gender and education inequalities. The study will also seek correlations between the education of girls or women and tolerance of violence, and explore how female participation in school relates to equality in a conservative Muslim society.



Currently, JICA is conducting the technical cooperation project, "Broadening Regional Initiative for Developing Girls' Education" (BRIDGE) which aims to increase girl's attendance in Yemeni schools. Yuki's study not only supports this project, but also extends beyond its scope by gauging learning achievement and the socioeconomic outcomes of education.

The project will be conducted primarily through surveys engineered to convey sensitive questions to students, teachers, households, and religious and community leaders.

Yuki travelled to Yemen recently to meet with members of national and regional government agencies, schools and NGOs. Collaboration with these members is needed for access to data sets and for input in formulating the surveys. Yuki states that some NGOs have already been collecting data relevant to the project – often specific information not easily attainable – such as on how less educated women are facing injustice.

The project will produce two types of output. The project team is preparing papers on the implications of Yemen's policy reforms towards religious schools and community participation for improving gender parity using existing data obtained from various development partners. The second output will be the findings from the project's original surveys which are being crafted at present. Here, the team will attempt to address not only gender parity in access, but also the quality of learning, the perception of women's opportunities and the possible role of female education on development stability.

Yuki intends for the results to contribute to academia and to practitioners, particularly those serving Yemen whose work will have immediate impact. Throughout the course of the project, Yuki will provide continuous input to Yemeni policy-makers to maximize usage of project findings. Some officials have already mentioned using the research to articulate their needs to the donor community. Finally, Yuki's work will provide lessons to those countries in similar situations striving to achieve their goals.

# Analyzing the Connection between Ethnic Diversity & Market Behavior through Simulation

The relationship between ethnic diversity and economic performance may be a negative one, as is a common assumption. To explore the validity of this statement and, more importantly, to uncover the mechanisms of how ethnic diversity affects economies, an experiment is currently being conducted through a JICA-RI research project.

The experiment, based largely on General Equilibrium theory, is an attempt to simulate trade interactions within an economic system. A group of test subjects, representing players within a market economy, are assigned two sets of a certain number of "commodities," and a table listing specific ratios of the two commodities and their respective payoffs. They then trade their commodities with each other simulating a real-world market in an attempt to maximize their *utility* by attaining ideal combinations of the commodities. Ideally, the simulation should produce a figure that converges upon theoretical equilibrium trade ratios.



Two players at market trade their "commodities."

Within Japan's homogeneous population, the experiment has produced results within expectations. However, how would results differ in an ethnically diverse environment? The project team conducted the experiment in Nairobi, Kenya, this past August to ascertain the impact of diversity on market equilibrium. The team was comprised of JICA-RI Research Associate and team coordinator Kohei Yoshida, and JICA-RI collaborators Kenichi Shimomura of Kobe University and Takehiko Yamato of the Tokyo Institute of Technology.

The Kenya experiment incorporated members from three of Kenya's largest ethnic groups: the *Kikuyu*, *Luo*, and *Kalenjin*. Over three days, the research team held trials within each of and among the three ethnic groups to uncover any differences that may affect trade performance.

Although the findings of the recent round of experiments are still being analyzed, the team has observed some salient differences among the behaviors of the ethnic groups. As an example, one ethnic group, described as the most "risk-averse," was observed to make only the minimum transactions to satisfy a lessdesirable utility level, and then take a seat while ample trial time still remained.

This experiment is part of a larger, interdisciplinary JICA-RI research project, entitled "Ethnic Diversity and Economic Instability in Africa." By studying specifically the differences in ethnic behavior toward economic activities, the JICA-RI team expects the experiment to contribute to the project by providing experimental evidence beyond general research. The project is led by Hiroyuki Hino, JICA expert in Kenya serving as an advisor to Prime Minister Raila Odinga.



On the importance of this research, Yoshida says, "We need to find channels in which ethnic diversity can work with economic instability. If we know this mechanism, we will know how it impacts the economy, enabling us to draw lessons for economic stability in ethnicallydiverse countries."

# **Envisioning Myanmar Economic Development**

The JICA-RI research project "Issues and Challenges for Economic Development in Myanmar" envisions a new development strategy for Myanmar – a country failing to achieve its full potential despite an abundance of human and natural resources. The project is led by Konosuke Odaka, Editor-in-Chief of the Research Institute of Economy, Trade and Industry.

This project is in part a follow-up to a JICA cooperation project on economic and social structural adjustment conducted from 2000 to 2003. It included policy recommendations to the government in the areas of agriculture and rural development, industry and trade, and credit and finance. None of them, however, came to fruition due to the country's domestic and foreign politics at the time, and the resultant inward-oriented economic policies.

The Myanmar economy is a mixture of market and command economies strongly influenced by politics. Given this reality, the research team is trying, without assuming *a priori* the advantage of a Western-type market economy, to discern the direction and policies for optimal socio-economic development based on thorough analysis of the country's past decisions, resource endowments, and the international economic environment.

This research project capitalizes on a vast body of information and onsite networks it has accumulated and established in the country through its long-term cooperation. The research findings are expected to serve as an important reference for JICA's future cooperation with Myanmar.

## Review

# Analyzing the Effects of Greenhouse Gas Reduction in Development Projects

The team for the JICA-RI project "Adaptation to and Mitigation of Climate Change in Developing Countries," led by Visiting Fellow Ryo Fujikura, will soon publish a book and policy brief detailing the findings. The publications will be released in conjunction with the 16th UN Conference of the Parties (COP 16) to be held in Mexico this November.

In addition, progress is being made in the second component of the study – on mitigation measures. This phase will review the low-carbon policies being addressed by developing countries, and will analyze and assess the effects of reduction in greenhouse gasses (GHG) produced by infrastructure projects. The goal is to propose new directions for environmental and international cooperation.

The research team has already begun data collection on the effects of GHG reduction in projects financed through ODA loans. This study targets coal-fueled power plant construction

projects furnished to China, India, Malaysia and Vietnam since 1990 which show great potential for GHG reduction.

The study involves comparative analysis of the GHG emissions from power plants installed with high efficiency, thermal power equipment made from Japanese advanced technology, and compares this to emission level estimates of facilities without the new technology. Although a complete analysis has yet to be conducted, the significance of GHG reduction from these ODA-financed projects is being realized by countries highly dependent on coal power like China and India.

At the end of this month, the study team on mitigation measures will hold its first workshop, commencing the main phase of the project. As is with the adaptation measures study, a book on mitigation measures will be published in conjunction with COP 17 next year.