

The Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS)

[Annual Evaluation Report] (Overview)

FY2020 Technical Cooperation Utilization Type / Emerging Market Development Program
(Training and Expert Dispatch Programs)

[Chapter 1 Program outline] (Outline of the objectives and evaluation of the programs)

Objectives	In order to support the reinforcement of the local footholds required for the overseas business expansion of Japanese companies, improving the level of local industrial technology, and contributing to the development of the economy by training the local human resources of private companies in developing countries through cooperation between the government and private sectors.	
Target Countries/ Regions	Developing countries [Target countries/regions for ODA specified by the Development Assistance Committee (DAC) of OECD]	
Implementation Period	April 1, 2020 – March 31, 2022 FY2020 budget carried over to FY2021 due to COVID-19.	
Target Field (Requirements)	(1) Technology transfer that contributes to industrial development in developing countries and regions (2) Including the problem-solving perspective according to the current condition of developing countries and regions	
Type of Business	Training Program	(i) Technical Training Engineers in developing countries, etc. are accepted by parent companies in Japan and provided with training. (ii) Management Training Managers in developing countries, etc. are invited to Japan and provided with training. (iii) Overseas Training Training is provided by instructors dispatched from Japan, etc. or instructors in the country where training is provided. (iv) Industry-Academia Collaborative Programs: University lectures and internships for students from developing countries
	Expert Dispatch Program	○ Technical guidance is provided for overseas local companies (companies receiving guidance) through financial contribution or by experts dispatched from Japanese companies (dispatching companies) in a business partner relationship.
Method of Program Evaluation	Prior Evaluation	○ Evaluation of adequacy of each case by the Screening Committee (adequacy of achievement goals, requirements for eligibility of participants, expertise of experts, etc.)
	Interim Evaluation/ Evaluation Immediately After Completion	○ Self-evaluation of goal achievement level by participants, dispatched experts, and using companies (Japanese and local companies)
	Aging evaluation	○ Questionnaire for returnee participants and companies that used the system before, and overseas on-site survey

[Chapter 2 Prior Evaluation] (Outlines of review implementation and cases)

1. Outline of review implementation (): the number of participants for training

<FY2020>

- *Screening Committee - Hold about twice a month (a total of 14 reviews) (conducted in document review or online)
- *Number of review approvals - Technical Training 65 cases (129), Management Training 0 cases (0), Invitation type Overseas Training 8 cases (97), Planned-by-AOTS type Overseas Training 22 cases (5,029), Industry-Academia Collaborative Programs 9 cases (292), Expert Dispatch 6 cases (48)

<FY2021>

- *Screening Committee - Hold about twice a month (a total of 20 reviews) (conducted in document review or online)
- *Number of review approvals - Technical Training 25 cases (92), Management Training 0 cases (0), Invitation type Overseas Training 7 cases (143), Planned-by-AOTS type Overseas Training 45 cases (5477), Industry-Academia Collaborative Programs 0 cases (0), Expert Dispatch 9 cases (59)

2. Outline of cases in FY2020 (implemented in FY2020 and FY2021)

(1) Training Program

[1] Technical Training: Number of accepting companies and participants in FY2020 (implemented in FY2020 and FY2021)

- *90 accepting companies, 221 participants (55 small and medium-sized companies, 126 participants)
(61 companies (132) after excluding 29 companies (89) that cancelled after review approval)

[2] Management Training: number of courses and participants in FY2020 (implemented in FY2020 and FY2021)

- * Neither planned nor implemented due to COVID-19.

[3] Overseas Training (Outline of the course and the number of participants)

- *Invitation type [Normal type]: Held 15 times in total in Malaysia, Thailand, India, and other locations in Southeast Asia and South Asia (hybrid style of online and partial in-person guidance); participants: 231 persons.

- *Planned-by-AOTS type: Held 100 times in total in India, Sri Lanka, and other locations in South Asia, Vietnam and other locations in Southeast Asia, and Brazil and other locations in Central and South America (online), and in Thailand (in-person guidance); participants: 11,090 persons.

[4] Industry-Academia Collaborative Programs (programs, internships, and the number of participants)

- * Programs held: Seven cases in total, in Vietnam (in person) and in Bangladesh, Sierra Leone, and Cambodia (online or hybrid style of online and partial in-person guidance); participants: 256 persons.

- * Internships: Two cases held in total, in Sierra Leone and Vietnam (online) among the above locations; participants: 55 persons.

(2) Expert Dispatch Program

[1] Number of companies using the expert dispatch system (number of dispatching companies), number of dispatched experts, and number of participants receiving guidance

- * Over multiple fiscal years since FY2019, the number of companies using the expert dispatch system is five with five cases, the number of dispatched experts is six, and the number of participants receiving guidance is 48 (SMEs only).

- * In FY2021, the number of companies using the expert dispatch system is three with three cases, the number of dispatched experts is three, and the number of participants receiving guidance is 29 (SMEs only).

- *The number of participants receiving guidance was submitted by the dispatching companies at the time of application, and the number in the plan of the human resource training goal approved by the review committee was aggravated.

[Chapter 3 Interim Evaluation/ Evaluation Immediately after Completion]

(Evaluation by the companies and participants during the training and immediately after the training)

1. Training Programs

(1) Technical Training (Consisting of general training conducted by AOTS and on-site training conducted by the accepting companies)

- Technical training consists of general training conducted by AOTS and on-site training conducted by the accepting companies. Due to COVID-19, interim evaluation and evaluation immediately after completion were conducted for general training for four courses only: six weeks starting January 13 and 13 weeks, six weeks, and nine days starting November 18, 2021. For on-site training, interim evaluation and evaluation immediately after completion were conducted for FY2019-FY2020 or for multi-year programs starting in FY2020 and ending by the end of 2022.

[1] General Orientation Course (Objectives: “adaptability for on-site training”, “spreading ability of technical transfer”, and “increasing familiarity with Japan”)

(i) Evaluation of goal achievement level in the general training < Self-evaluation of the participants about 17 items with 7 grades >

*In all 17 items, the evaluation goal exceeded 5.0 at the time of completion (5.5-6.5 with the full score of 7.0), which increased by 1.2-2.6 compared with the initial scores prior to training. ⇒The goals were thought to be achieved.

(ii) Evaluation of goal achievement level in Japanese proficiency < Evaluation by AOTS>

*The average achievement scores did not reach the goal, and many of the participants needed to continue studying. (6-week course=Level of finishing the first half of the beginner course, 13-week course=Level of finishing the second half of the beginner course.) On the other hand, due perhaps to encouragement to study before coming to Japan the initial scores on *kana* characters at the start of training were relatively high (six weeks: 2.6 pts.; 13 weeks: 2.56 pts.). While efficiency was improved by providing online training using the isolation period after arrival in Japan, time for conversational and other practice was reduced. Their command of the language is expected to improve by using the knowledge of the language they learned in the general training for actual communication.

[2] On-site Training

(i) Evaluation of effect of general training in on-site training

*Accepting companies: General satisfaction level exceeded the evaluation goal of 4.0 (4.2 out of a full score of 5.0), generally showing their satisfaction.

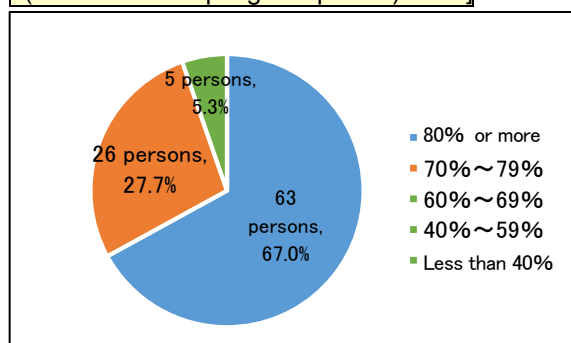
*Participants: General training was generally highly evaluated (4.0-4.7 for each item), generally showing the achievement of the goals.

(ii) Evaluation of goal achievement level in on-site training

*Over 90% of the accepting companies answered an achievement level of over 70%, and over 90% of the trainees answered an achievement level of 80% or more, generally showing the achievement of the initial goals.

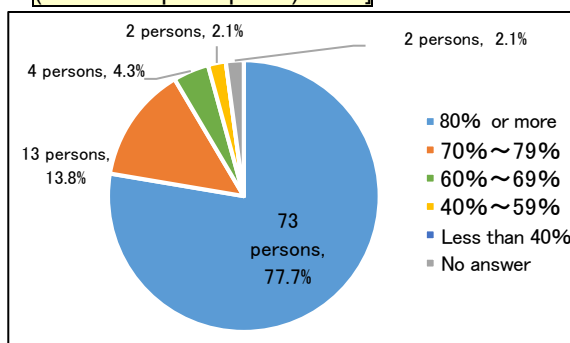
[Evaluation of goal achievement level]

(evaluator: accepting companies) n=94



[Evaluation of goal achievement level]

(evaluator: participants) n=94



(iii) Online training during the waiting period

- Online training was conducted during the 14-day waiting period after entering Japan imposed as a containment measure against COVID-19 (including hybrid training combining partial in-person guidance and online training for those arriving after the starting date of the course due to flight schedules). Company visit, which could not be conducted last fiscal year, were also conducted with additional safety measures, since the COVID-19 situation was relatively more settled. While many preferred in-person visits, many also appeared to express positive views on and interest in online tours. There is a need to develop effective structures through means including flexible adaptation to individual IT literacy and Japanese proficiency levels.

(iv) Entry to Japan under special circumstances

- The program beginning November 18, 2021 was able to be held thanks to the authorities permitting entry to Japan under special circumstances. It is thought that under a framework that differs from the usual one, orientation could be held before arrival in Japan, helping to clarify trainees' understandings of the purposes of the training and their roles after returning to their home countries.



A scene from a hybrid program (online streaming using web cameras)



A scene from a Japanese course (participation from individual rooms during the waiting period)

(2) Management Training

- Neither planned nor implemented in FY2020 and FY2021 due to COVID-19.

(3) Overseas Training (Invitation type/ Planned-by-AOTS type)

(i) Invitation type (comments from participants [excerpted])

- Example 1 (Malaysia, online): It was my first experience with online training. The training helped me understand the "new normal."
Although the samples were basic, the training included a focus on details.
- Example 2 (Thailand, hybrid): Through manual preparation and remote guidance by highly skilled operators from Japan, I was able to learn new skills and about new equipment, which

helped me improve my manufacturing skills in the plant.

- Example 3 (India, online): I was able to plan training overseas with peace of mind, since the training was adapted for lockdowns and plant closures due to the COVID-19 pandemic.



(ii)Planned-by-AOTS type (Evaluation of participants):

- Example 1 (Thailand): Low Cost Automation (LCA) Training

This training was conducted in person, as a five-day program for which the Sumipol Institute of Manufacturing Technology (SIMTEC) was the CP. It included lectures and seminars on low-cost automation and other productivity and process improvements. Participants found it highly satisfying and understandable.

- Example 2 (Multi countries):

Training on corporate stimulation through practical action: Organizational reforms based on the "Five S's"

This online training was conducted at the Kansai Training Center, as a four-day online program on implementing "Five S" practices as a means of organizational reform. In addition to lectures, it featured introductions to case studies from Japan and other countries and group work, and group presentations were made on the final day. Participants found it highly satisfying and understandable.

(iii) Industry-Academia collaborative programs (evaluation by participants)

- Evaluation immediately after completion of the four programs completed under the FY2020 budget showed that the number of students answering that they were "very highly" or "highly" interested in employment with a Japanese or Japan-affiliated company rose from 103 persons before to 110 persons after the program. The number of students answering that they were "very highly" or "highly" interested in employment with the applicant company rose from 97 persons before to 105 persons after the program. (The number of students responding to the survey was 129 persons.) These results show that the program contributed to increasing students' desire to work for Japanese or Japanese companies.

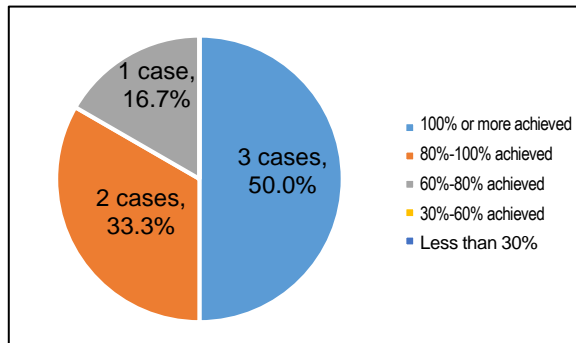
2. Expert Dispatch Program

(1) Evaluation by experts (evaluation by six experts who had returned to Japan by March 2022)

- Goal of technical improvement: More than 80% of experts answered an achievement of 80% or more.
- Goal of human resource training: More than 80% of experts answered an achievement of 80% or more.

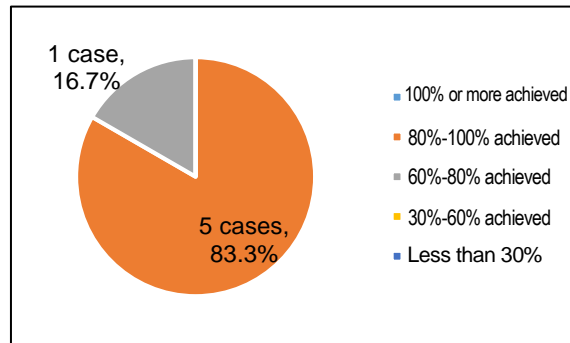
Goal achievement level of technical improvement

n=6



Goal achievement level of human resource training

n=6



(2) Management effects for companies receiving guidance and dispatching companies, changes in employees of companies receiving guidance

- The companies receiving guidance evaluated “quality improvement”, “technical improvement”, “service competitiveness improvement,” and “productivity improvement”. It appears that expert guidance led to improvements in the technical abilities of companies receiving the guidance and contributed to management effects.
- The dispatching companies evaluated “quality improvement”, “cost reduction”, “contribution to business advancement,” “technical improvement”, and “improvement in customer satisfaction” as management effects. They regarded highly not only technology transfer but also management effects in terms of costs.

Chapter 4 Ex-post Evaluation

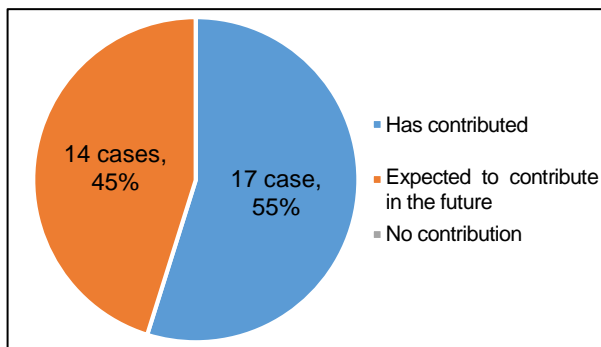
- A survey was conducted for the companies that used the system in FY2020 (implemented in FY2020/FY2021) (Japanese and local companies) and the participants.

1. Training Programs / Expert Dispatch Program (Appearance of results of the programs, ripple effect)

(1) Training and guidance results (settlement of participants, spread of techniques and knowledge, etc.), contribution to local and Japanese companies

- As many as 94% of technical participants continue to work for the local companies after returning to their countries. Also, a majority of them answered that they spread the knowledge and techniques acquired in Japan in the local companies. Thus, we think the goal of technical transfer was achieved.
- The local companies evaluated the contribution to “improvement of employee morale”, “increase in sales,” and “improvement in profitability.” Also, 55% answered that they contributed to the entire company, and 45% answered they were expecting contributions in the future. It appears that after returning to their home countries trainees serve as role models, having positive effects on local employees. While no companies answered that there have been effects on reducing CO₂ emissions, it is clear that training results are apparent from an early stage on subjects such as “increase in sales” and “improvement in profitability.”
- Japanese companies evaluated “strengthening cooperation with local companies” and “human resources training and international awareness in Japanese companies”.

[Contribution to the local companies n=31]



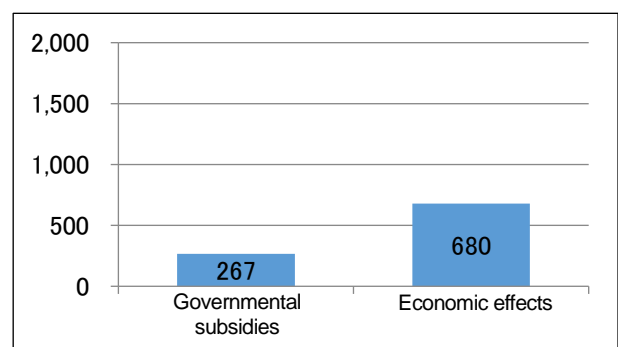
[Chapter 5 Evaluation of economic effects]

1. Evaluation of economic effects

(1) Accepting Training Programs

*When we investigated the cost that companies needed to bear by conducting similar training without using the AOTS system and the economic effects obtained through this training (up to 5 years after the completion of the training), regarding the accepting companies, the cost-effectiveness per participant was 1.8 times for technical training, and the total amount of cost-effectiveness was 680 million yen. Estimating from this figure, the total amount of cost-effectiveness was 2.5 times the governmental subsidy, indicating sufficient cost-effectiveness.

[Cost-effectiveness (unit: million yen)]

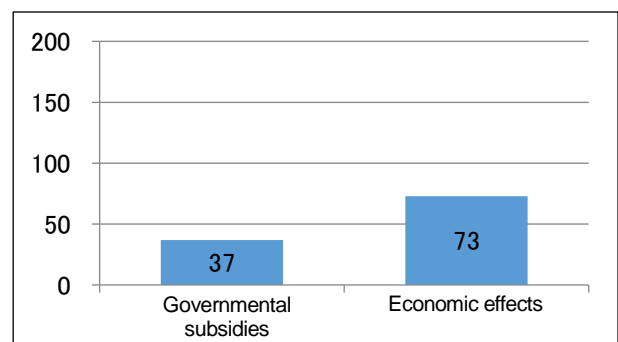


(2) Expert Dispatch Programs

*According to a similar investigation to above, cost-effectiveness per dispatched expert per month was 2.3 times on average, and the total amount of economic effect was 73 million yen. The total effect was 2.0 times the amount of the government subsidy, indicating sufficient cost-effectiveness.

* In FY2020, due to COVID-19 it was difficult to conduct the same programs as through the previous fiscal year, and the number of trainees decreased by 670 persons (88%) and the number of dispatched experts decreased by 89 person-months (65%) from the previous fiscal year.

[Cost-effectiveness (unit: million yen)]



(Cost-effectiveness
= estimated economic effect/national subsidy)

[Chapter 6 Aging Evaluation]

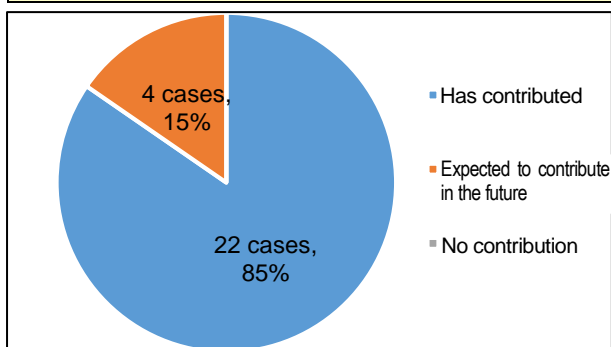
(The results of the survey of the companies at a set period [3 years] after use of the system)

1. Training Program (Technical Training) / Expert Dispatch Program (Results of the questionnaire and on-site survey)

(1) Results of training and guidance, and contribution to the local and Japanese companies (Changes between FY2016 and FY2018)

- Among trainees who had returned to their home countries, 88% (after one year) and 100% (after three years) answered, "the skills and knowledge learned have had a ripple effect on my company and related sections," indicating that the results of training in Japan are being realized gradually.
- After 3 years, 85% of local companies evaluated the contribution to "an improvement in employee morale" and "an increase in sales", etc. It is clear that trainees who have received guidance continue to contribute to local companies as role models for local employees.
- Japanese companies answered that there was a contribution to "strengthening cooperation with the local companies" and "human resource training and improving international awareness". These results can be said to show that globalization of Japanese companies also is being promoted through use of this program. Some answers given also concerned management directly, such as "an increase in sales" and "an increase in domestic customers."

[Contribution to the local companies after 3 years n=37]



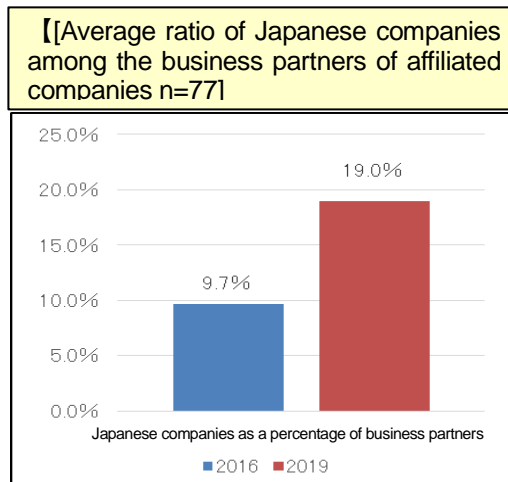
(2) Overseas on-site survey

- Results of online surveying by outside researchers and others of five local companies (two in Vietnam and one each in Indonesia, Thailand, and Myanmar) that had used the program in FY2016 and FY2018 confirms results of the training/experts dispatch program such as: (i) contributing to cooperation between Japan and ASEAN and to cost savings, (ii) training of human resources to support Japanese companies' ASEAN production networks, (iii) assignment of various functions and roles such as increasing numbers of new domestic customers and handling exports within the region as a result of skills development, and (iv) balancing growth in business scope with productivity improvements.
- To make the program even more meaningful, the outside researchers recommended (i) seeking out ways to resume the program swiftly for countries other than those subject to travel restrictions, and (ii) prioritized acceptance of cases related to automation and labor saving, such as use of digital technologies.

2. Training Program (Management Training) (Questionnaire regarding the change in the situation after 3 years and overseas on-site survey)

(1) Results of the training and contribution to the affiliated companies and Japanese companies

- As many as 99% of participants answered they were “spreading techniques and knowledge, etc. acquired in the management training” in the reform of their companies, such as “formulating and deploying economic strategy”, “organizational reform”, and “formulating management philosophy”, etc., and actively return to the surroundings. Is suggested
- Of the 151 trainees who responded to the survey, 149 answered that the training has contributed to their employers' organizations and business performance as well. In addition, many trainees answered that relationships with Japan and Japanese companies have strengthened.



(2) Overseas on-site survey

- Results of online surveying by outside researchers of four trainees (two from Nepal, one from Sri Lanka, and one from Bangladesh) who had participated in the Program for Japanese Corporate Management (PJCM) conducted in FY2016 showed clearly that specific management methods such as amoeba management and the "Five S's," learned in training after returning to their home countries, were being implemented in their companies and had generated some results. In addition, it was recommended that the program attempt separate courses derived from the program, such as remote short-term courses and in-person long-term courses in seasons (such as autumn) that differ from the current training implementation period (the fourth quarter of each fiscal year) and meetings for reporting by past trainees, while continuing the current in-person training (two weeks).

3. Summary

- According to the results of the aging evaluation, we could verify that effects manifest 3 years after use of the system.
- Regarding Technical Training and Expert Dispatch, it was confirmed that the participants of companies that used the AOTS system and participants receiving guidance were trying to widely spread the acquired knowledge and techniques. Over the last 3 years, the companies that used the AOTS system have established the techniques transferred to their workplaces, strengthened integrated management as a group both inside and outside the country, and are showing the effects of the use of the system by improving their sales and profit.
- Regarding Management Training, participants undergo a change in consciousness that leads to growth in the business performance of their own companies as they proactively broaden the results of training while incorporating Japanese-style management techniques etc., relationships with Japan-affiliated and Japanese companies are also strengthening. Ripple effects of training are spreading far beyond trainees' own sections to involve their entire companies and even more.
- Under conditions of the "new normal" as the impact of the COVID-19 pandemic continues to be felt, many SMEs continue to face difficult conditions. Still, it is important to publicize the subsidies for the costs of this program, so that they can be used to budget for human-resource development, which tends to be postponed under such

conditions. The number of companies adopting hybrid training combining local on-site guidance with remote guidance using ICT tools is increasing, and in fact training involving on-site guidance support and in-person follow-up is generating results since it is difficult to convey essential points and understand precise nuances through online guidance alone. AOTS intends to propose effective combinations suited to the skills subject to guidance. For example, while even online guidance is effective for classroom training in groups, in-person on-site guidance is preferable for guidance on machinery and equipment. In the future as well, we will continue to communicate information through means such as introducing case studies on remote guidance and training and introducing tools and systems that can be used in remote guidance.

- The need to strengthen human resources in Japanese companies in developing countries is increasing more and more. It is appropriate for AOTS to continue this program with a mid-to long-term perspective in the future, and we think it will improve the level of industrial techniques in the target countries as well as contribute to their economy.