Must be typed

（For JSPS Fellow）

Form B-5

Date（日付）
25/02/2015 （Date/Month/Year:日/月/年）

Activity Report -Science Dialogue Program-
（サイエンス・ダイアログ事業　実施報告書）

- Fellow's name（講師氏名）: **Mengnjo Jude Wirmvem** （ID No. P**14331**）

- Participating school（学校名）: **KUMAGAYA HIGH SCHOOL**

- Date （実施日時）: **23/02/2015** （Date/Month/Year:日/月/年）

- Lecture title（講演題目）: （in English）**Hydrology and its significance to water resources management**

（in Japanese） **水文学と水供給源管理における水文学の重要性**

- Lecture Summary（講演概要）: Please summary your lecture 200-500 words.

In Part I of the lecture, I gave a summary of my educational background (Primary education to Postdoctoral studies) and mainly discussed my country, Cameroon. I briefly introduced the students to the geography (location, distance from Japan, climate and relief, population and religion); and history (origin of the name Cameroon, colonisation and independence) of Cameroon. About languages, the origin of the two official languages (English and French) and the numerous ethnic languages in Cameroon was explained. This was followed by telling them about daily life, dishes-food, culture, natural resources, sports (soccer) and famous footballer (Samuel Etoo) in Cameroon.

In Part II, I explained to the students why I became a scientist (hydrogeochemist and isotope hydrologists). The link between environment, human health and development was discussed stressing the need to contribute scientific knowledge to our environment, especially for water resources management.

Part III of the lecture was about the interesting/important aspects of my research. A review of daily uses of water (shower, drinking, cooking, cleaning of dishes and laundry) were discussed with the students. This was followed by the importance of knowing the origin, quality and quantity of the water they use everyday. The students were introduced to basic aspects of isotope hydrology (the water molecule, its heavy isotopes, causes of isotopic fractionation and the Global Meteoric Water Line). The application of the stable isotopes of hydrogen (^{2}H) and oxygen (^{18}O) in studying the movement and distribution of water in the environment was discussed. Further applications to the study of groundwater recharge, surface water and groundwater interaction were explained to the students. I spoke about the use of stable isotopes in monitoring the distribution of bottled water. The major ions, potentially harmful trace and radiogenic elements in drinking water were introduced. The two main sources of these ions and elements in water (rock

weathering and human activities) were discussed. Some health effects from poor water quality including Arsenic poisoning and nitrate toxicity were explained to the students. This was followed by the link between the good quality drinking water, healthy body and subsequently national production. I concluded the lecture with my research cycle from fieldwork, to laboratory work, attending conferences and writing articles in the English Language.

- Language used（使用言語）: **English**

- Lecture format（講演形式）:

◆Lecture time（講演時間） **40** min（分）, Q&A time（質疑応答時間） **10** min（分）

◆Lecture style（ex.: Used projector, conducted experiments）

（講演方法（例:プロジェクター使用による講演、実験・実習の有無など））

Used projector

◆Interpretation（ex.: Assistance by accompanied person, provided Japanese explanation by yourself）（通訳（例:同行者によるサポート、講師本人による日本語説明））

Japanese explanation by an interpreter

◆Name and title of accompanied person（同行者 職・氏名）

Kenta Takagi (Mr)

◆Other note worthy information（その他特筆すべき事項）:

- Impressions and opinions from accompanied person（同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。）: **発表・進行共に円滑に問題なく行えたと思います。**