WORLD ASSOCIATION OF SOIL AND WATER CONSERVATION

HOT NEWS

Issue 03, 2017

WASWAC HOT NEWS No. 03, March, 2017

Contents

Editors: Dr. Du Pengfei, Contributors include Prof. Camelo Dazzi, Prof. lldefonso Pla Sentis, Dr. Amir Kassam, and Prof. Li Rui.

IRTCES Building

(Where the Secretariat of WASWAC is located)

The Secretariat of WASWAC

No. 20 Chegongzhuang Road West, Beijing 100048, P. R. China

Tel: +86-10-68786579

Fax: +86-10-68411174

Email: waswac@vip.163.com

For ISWCR paper submission:

http://www.journals.elsevier.com/international-soil-and-water-conservation-research/

WASWAC Website: www.waswac.org

Recent developments of CONSOWA

1) The names of the Keynote Speakers and the titles of their presentations are already included in the web of CONSOWA (www.consowalleida2017.com).

2) If you have submitted a short abstract, and it has been accepted, please send the extended abstract (see instructions in the web of CONSOWA) and register preferably before the 31 March 2017 - This deadline has been extended till the 15 April 2017.

If you do not register before that date, your extended abstract will not be included in the Proceedings of the Conference.

The selection of the papers to be published after the Conference in different Journals, will be based on those extended abstracts included in the Proceedings.

3) Papers (short or extended abstracts) for the Conference will continue being accepted till the 30 April 2017.

All of them will be selected only for poster presentation.

The short abstracts will not be included in the book of abstracts, but the extended abstracts will be included in the Proceedings of the Conference if they are submitted

before April 15, 2017.

4) Those participants already registered and the ones being registered from now on are urged to select (see the web of CONSOWA) the two preferred field trips on the 14th June.

If not, they will be included in any of the programmed field trips with places left.

Remember that the field trips on the 14th June are included in the general registration fees.

5) There are still some empty places in the pre-conference field trip (10th June 2017) in the surroundings of Barcelona, and in the post-conference field trip (17-19 June 2017) to the Canary Islands (see web of CONSOWA). Therefore, although the initial deadlines have been surpassed, you still have the possibility to register before the 30 April 2017, or before those places have been filled.

6)Remember that all registrations after the 31 March 2017 will have to pay the late registration fee of 550 € (regular registration) or 275 € (student registration).

7) We urge you to reserve hotel accommodation in Lleida as early as possible, especially if you wish to stay in one of the hotels close to the Conference site.

Please see the information about accommodations in the web of CONSOWA.

8) If you need some special certification letter from the Conference to get your visa, please let us know.

2017 APFNet Scholarship Program for Master's Degree of Northwest A&F University

NORTHWEST A&F UNIVERSITY

Launched in 2010, APFNet Scholarship Program aims to support capable individuals - either forestry officials or researchers from the Asia-Pacific region to pursue master degree in the field of sustainable forest management and rehabilitation in universities and institutions in China and the region. Advanced technology in management, techniques skills, field practice and experience will be taught, so as to improve the ability of those who will drivesustainable forest management and rehabilitation forward for the region.

1.Application Eligibility

(1)Non-Chinese citizens from Great Central Asia, including Mongolia, Kazakhstan, Uzbekistan,Turkmenistan, Kyrgyzstan, Tajikistan.

(2) Age of 18- 40 and in good health condition

(3) Holder of Bachelor's degree or an equivalent degree awarded in higher ducation institute in forestry or related field

(4) Good command of English (The medium language of instruction for the program will be English)

2.Majors of Study

- Forestry Protection

Prof.Zhao Zhong http://en.nwsuaf.edu.cn/faculties/co6/53857.htm

Prof.Zhang Shuoxin http://en.nwsuaf.edu.cn/faculties/co6/53859.htm

Prof.Cao Tianjian http://en.nwsuaf.edu.cn/faculties/co6/72569.htm

Prof.Kang Yongxiang http://en.nwsuaf.edu.cn/faculties/co6/53886.htm

Prof.Cai Jing http://en.nwsuaf.edu.cn/faculties/co6/72611.htm

- Soil and Water Conservation and Desertification Control

Prof.Liu Guobin

http://sourcedb.cas.cn/sourcedb_iswc_cas/yw/people/ps/200910/t20091021_2585341.html

Prof.Mu Xinming

http://sourcedb.cas.cn/sourcedb_iswc_cas/yw/people/ps/200911/t20091101_2644966.html

Prof.Jiao Juying

http://sourcedb.cas.cn/sourcedb_iswc_cas/yw/people/ps/200911/t20091101_2644938.html

Prof.Wang Fei

http://sourcedb.cas.cn/sourcedb_iswc_cas/yw/people/ps/200910/t20091020_2584561.html

3.Duration of Study

2 years, from every September

4.Details of Scholarship

(1) Monthly stipend of 3,000 yuan

(2) Free campus accommodation.

(3) Free Medical insurance

(4) One-off payment of CNY 500 per year for outpatient medical services.

(5) One round trip international tickets from students' home country to China

5.Deadline of Application

May 31st, 2017

6.Application Documents.

(1) Application Form for APFNet Scholarship (Please see and download from http://is.nwsuaf.edu.cn/zlxz/337274.htm）

(2) Notarized diploma and academic transcripts of the highest degree (Chinese or English);

(3) Acceptance letter from a potential supervisor(http://en.nwsuaf.edu.cn/faculties/co6/index.htm);

(4) Two Recommendation letters in English;

(5) Study or research proposal in English;

(6) Foreigner Physical Examination Form (Please see and download from http://is.nwsuaf.edu.cn/zlxz/321992.htm)

(7) Certificate of English Proficiency;

(8) Approval letter from the applicant's employer/organization for study at NWAFU);

(9) Photocopy of photo page of valid passport;

(10) Other support documents;

Note:IELTS of a minimum score of 6.0 overall, TOEFL iBT of a minimum score of 80 overall,

7. Mailing Address

Please mail all the application documents by courier to the following address before May 31st, 2017.

Office of Admissions

College of International Education

Northwest A&F University

3 Taicheng Road, Yangling, Shaanxi, China

Phone: +86-29-87080182

Note: Application documents will not be returned regardless of whether being enrolled or not.

8. Contacts:

(1) Northwest A&F University

Dr. Qiang Baifa

Phone：+86-29-87080182

Fax：+86-29-87080283

E-mail: qiangbaifa@yahoo.com

Mailing Address:

Office of Admissions, College of International Education, Northwest A&F University,

3 Taicheng Road, Yangling, Shaanxi, China

712100

(2) APFNet

Ms. Hu Chuyu/Ms. Chen Lin

Phone: +86-10-66007866-8024

Fax: +86-10-84216958

E-mail: hu_chuyu@apfnet.cn, chen_lin@apfnet.cn

Mailing Address:

6th Floor, Baoneng Center (Building A), 12 Futong Dongdajie, Chaoyang District, Beijing, P. R. of China

Postcode: 100102

ABOUT Northwest A&F University

Northwest A&F University is a key national comprehensive university directly under the administration of the Ministry of Education. As one of the leading universities in China, NWUAF is supported by Ministry of Education's "Project 985" and "Project 211". The University is located in Yangling, Shaanxi Province, the birthplace of Chinese Agricultural civilization and today's the National Agriculture High-tech Industrial Demonstration zone.

The University originated from National Northwest Junior College of Agriculture and Forestry which was founded in 1934. The past eighty years since the university's establishment has witnessed generations of its faculty and students adhering to the educational philosophy of "managing state fundamentals, solving civilian livelihood, and respecting scientific research" and practicing the University motto of "Sincerity, Simplicity, Bravery and Perseverance ". We give prime concern to our nation and people; we inherit Hou Ji's resolution from the ancient time and practice "Farming

Teaching" in modern way; we persist in close integration of production-learning-research, and have made significant contributions to China's agricultural modernization and scientific research.

NWAFU is the only education institution in China that is completely equipped with disciplines of agriculture, forestry, and water science. Currently there are all together 23 colleges (departments, institutes) and Graduate School, covering disciplines of agriculture, science, engineering, economics, business, liberal arts, law, philosophy, history, medicine, education, arts, etc.. The recruitment of undergraduate students has been initiated in 1934 and post-graduate students in 1941. During the past eight decades, more than 130,000 professional talents have stepped out of campus to work home and abroad, among whom 15 have become academicians of Chinese Academy of Sciences and Chinese Academy of Engineering; they have made outstanding contributions to Northwest area and whole China in world agriculture modernization and rural economic social development.

NWAFU always aims at frontier development of high technology. In accordance with national and regional strategic demands, NWAFU has conducted applied researches in areas of Animal and Plant Breeding, Plant Protection, Agricultural Biology Technology, Agriculture and Irrigation Technology in Dry Areas, and Comprehensive Treatment to Water and Soil Loss in China's Loess Plateau have developed distinguished features and priorities. NWAFU has acquired more than 5000 accumulated scientific achievements in various areas, among which over 1800 achievements are awarded. Outstanding research accomplishments include"Bima-1", the most widely planted wheat variety in China, and "Xiaoyan-6", the leading replacement variety. The university researchers also developed the apple variety "Qinguan", the most commonly planted apple variety in China. The direct economic benefit of promoting these achievements values over 200 billion RMB.

More details about Northwest A&F University, please visit:

http://en.nwsuaf.edu.cn/index.htm

COMMING MEETINGS

EGU 2017

SESSION during the EGU 2017 General Assembly, April 23-28 2017, Vienna, Austria

SSS1 – History, Education and Society of Soil Science, Taxonomy

Division SSS – Soil System Sciences.

Contributions that show new educational approaches, cooperation with other disciplines and efforts to improve sustainability are of interest.

SSS1.8

The contribution of the Soil Science Societies to scientific knowledge, education and sustainability

See here: http://meetingorganizer.copernicus.org/EGU2017/session/23790

7th World Congress on Conservation Agriculture

Date: August 1-4, 2017

Venue: Rosario, Argentina

The 7th WCCA provides the opportunity to learn from No-till farmers associations and network with an international gathering of agricultural experts.

Details at: http://congresoaapresid.org.ar/

SWCS 72 International Annual Conference

Details at: www.swcs.org/17ac

1. Professor of Environmental Change

University of Portsmouth

Employment type: Permanent

Employment basis: Full time

Salary: Competitive Salary

Post number: ZZ003776

Closing date: 17 April 2017

Interview date: 15 May 2017

The Department of Geography wishes to appoint a research leader in environmental change, specialising in Quaternary and/or contemporary timescales. The Department of Geography has an emerging group of talented staff working mainly in past environmental change which the post-holder will be expected to nurture, and collaborate with where appropriate. The post-holder will also be expected to contribute to broader strategic research leadership across physical and environmental geography.

Candidates will have a substantial international research profile as evidenced by well-cited publications in leading journals and a track record of attracting research funding. An ability to make connections between research areas and have a multi-disciplinary outlook is essential. We are looking for a high-calibre scientist with leadership capabilities, willing to share expertise and nurture others.

In return, the post-holder can expect minimal teaching for two years, the opportunity to collaborate with a group of talented early-career researchers and work in a department enjoying an exciting renaissance. Thereafter, the Department operates a system of 'teaching light' semesters and research sabbatical scheme. The candidate will be expected to enthusiastically integrate research specialisms into teaching, while developing skills

relevant to the graduate labour market, thus contributing to the Department's strategy of skills-focused and research-informed teaching.

For further information about this role, including a candidate pack and how to apply, please visit www.workforportsmouth.co.uk

Prospective candidates may wish to seek informal discussions with the Head of Department, Professor Donald Houston: donald.houston@port.ac.uk or Dr Nick Pepin, Associate Head for Research & Reader in Climate Science: nicholas.pepin@port.ac.uk

To apply please submit a full CV and covering letter (no more than two pages) summarising your proven ability related to the person and job specification to chair-environmental-change@port.ac.uk

Details at: http://www.earthworks-jobs.com/environs/portsmouth17031.html

2. PhD Scholarship Opportunities School of Earth, Atmosphere and Environment

MONASH University

PhD research scholarship opportunities exist in the School of Earth, Atmosphere and Environment, Monash University for, high-quality, dedicated, well-motivated and enthusiastic students. The School of Earth, Atmosphere and Environment is located at the Clayton Campus of Monash University in Melbourne and is renowned for its high standards in teaching and research. Researchers at Monash have access to an enviable range of analytical and technical equipment including high performance computing facilities, custom-built laboratories and the largest array of meteorological field equipment in Australia. These are complemented through strong ties with the Australian Research Council's Centre of Excellence for Climate Systems Science, the Co-operative Research Centre for Water Sensitive Cities, the Australian Synchrotron, the Monash Centre for Electron Microscopy (FEG-SEM, TEM).

Projects are available in the areas of,

- Atmospheric Science

- Geoscience
- Physical Geography

More specific information on the research interests of academic staff may be found at: http://monash.edu/science/about/schools/earth-atmosphere-environment/ourpeople/index.html

The University has a comprehensive support network for the diverse needs of international students. Graduates of Monash University have a reputation as independent learners, innovators and leaders, and so are widely sought after by international employers. Further details regarding Monash University may be found at: www.monash.edu.au

A range of stipend and tuition-fee scholarships is available for Australian and International Students. Details of the various scholarships may be found at: http://mrgs.monash.edu.au/scholarships/index.html.There is the potential for Scholarships to be taken up at any time during the year.

Applicants will typically hold an undergraduate degree based on at least 4 years of study, including a significant research project component, and have First Class Honours or MSc qualifications or their equivalent. Monash scholarships are highly competitive and successful applicants generally have relevant additional research experience and/or research publications in international journals. Applicants for whom English is not first language, or who have not undertaken their degree studies with English as the language of instruction, must attain a satisfactory English language test score before the allocation of scholarships in early June.

Please post your expression of interest by completing the required document located http://www.monash.edu/science/schools/earth-atmosphere-environment/postgrad/phd-eoi

Please ensure you follow directions requiring the sharing of documents.

Please note expressions of interest without academic transcripts will not be considered.

Applications close on the 31st of May, Expressions of Interest should be submitted no later than the 19th of May

Details at: http://www.earthworks-jobs.com/geoscience/monash17021.html

Soil organic carbon – the hidden potential

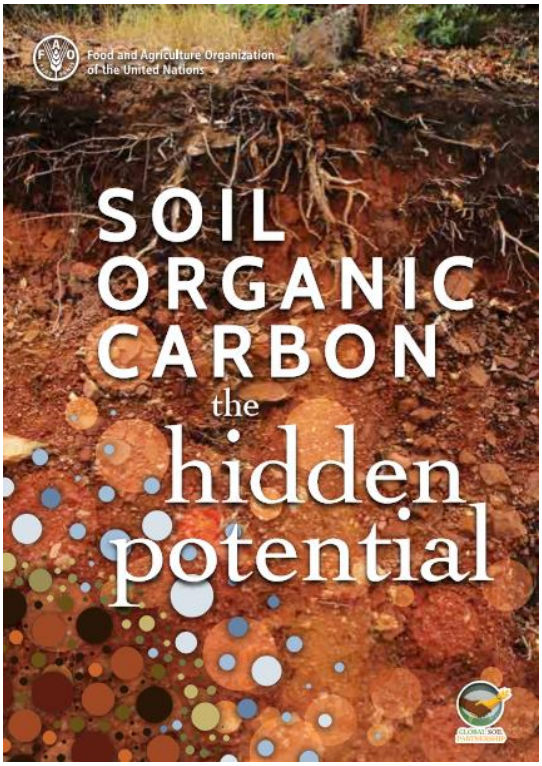
Year of publication: 2017

Publisher: FAO

Pages: 90 p.

ISBN: 978-92-5-109681-9

Author: Lefèvre, C.;Rekik, F.;Alcantara, V.;Wiese, L.



Abstract: The publication was launched at the Global Symposium on Soil Organic Carbon (GSOC) held at FAO headquarters (Rome, 21-23 March 2017). It provides an overview to decision-makers and practitioners of the main scientific facts and information regarding the current knowledge and knowledge gaps on Soil Organic Carbon. It highlights how better information and good practices may be implemented to support ending hunger, adapting to and mitigating climate change and achieving overall sustainable development.

Free Download here: http://www.fao.org/documents/card/en/c/ed16dbf7-b777-4d07-8790-798604fd490a/

Scientists Successfully Grow Potatoes in Mars-Like Soils

By Brigit Katz

A new study suggests that potatoes may be able to survive on the Red Planet, too. As Katherine Ellen Foley reports for Quartz, researchers at the International Potato Center (known as CIP, its Spanish acronym) were able to sprout a crop of spuds in Mars-like soils.

As part of his survival plan, Watney uses vacuum-packed potatoes to start his own farm on Mars. (Giles Keyte/Twentieth Century Fox)

Scientists working on the aptly-named "Potatoes on Mars" project wanted “to know what the minimum conditions are that a potato needs to survive,” researcher Julio Valdivia-Silva says in a statement. But the scientists faced a steep challenge. Conditions on Mars are not hospitable to biological life. The planet’s soils are salty, thin, and lacking in chemicals like nitrogen, which helps plants grow. Its atmosphere contains little oxygen—also important to plant growth—and its average temperature hovers at a frigid -80 degrees Fahrenheit.

To recreate these harsh conditions, researchers relied on soils from the Pampas de La Joya desert in Peru, which, like the soils on Mars, contains few life-sustaining compounds. They then placed the soil inside a CubeSat—a small, sealed satellite that can simulate the temperature, air pressure, oxygen and carbon dioxide levels on Mars—and sowed the dirt with potato seeds, Rob LeFebvre reports for Engadget.

Researchers took a number of steps to boost the potatoes’ chances of growing in such

a harsh environment. They used tubers that had been bred to thrive in salty soils, and irrigated them with nutrient-rich water. As Rae Paoletta points out in Gizmodo, the soil was also enhanced with fertilizer—not unlike Matt Damon's poopy potato crops in The Martian.

Sensors monitored the patch of land 24 hours a day. And one year after the project began, researchers saw spuds sprouting in the soil. Potato breeder Walter Amoros calls the results a "pleasant surprise," according to the CIP statement.

CIP's experiment could have significant implications for the future of space exploration. NASA is pushing forward with plans to send humans to Mars, and astronauts are going to need to eat while they're there. But it's important to note that the results of the experiment have not yet been published in a peer-reviewed journal.

Growing the plants is just the first hurdle that scientists need to overcome when it comes to feeing astronauts on Mars. As Foley writes in Quartz, "figuring out how to bring the seeds, water, and plant nutrients to our neighboring planet is something else entirely."

The results of the experiment may, in fact, be more significant to humans here on Earth. When CIP isn't dabbling in extraterrestrial farming, the organization uses roots and tubers to develop sustainable solutions to poverty, hunger, and climate change across the globe. Climate change creates poor soil conditions, the CIP explains in a second statement, which can exacerbate poverty and malnutrition in already vulnerable areas. If potatoes can thrive in Mars-like conditions, researchers theorize, they can likely survive in soils that have been damaged by global warming. Or as Joel Ranck, CIP's Head of Communications, puts it: "[I]f we can grow potatoes in extreme conditions like those on Mars, we can save lives on Earth."

CIP will continue to monitor its little patch of tubers, and the patient souls among us can follow the potatoes' (very, very slow) progression on a live stream.

Copy from: http://www.smithsonianmag.com/smart-news/scientists-successfully-grow-potatoes-mars-soils-180962528/

Future climate change will affect plants and soil differently

Scientists analysed data from seven climate change experiments across Europe to show how European shrubland plant biomass and soil carbon loss is affected by summer drought and year-around warming.

The research was led by Dr Sabine Reinsch and Professor Bridget Emmett from the UK-based Centre for Ecology & Hydrology (CEH) in collaboration with European and US climate scientists and published in the Nature journal Scientific Reports.

The authors showed that soil carbon loss is most responsive to change in soil water. Soil water plays a critical role in wet soils where water logging limits decomposition processes by soil biota resulting in a build-up of soil carbon as peat. Drying of the soil removes this limitation resulting in soil carbon loss. In contrast in drier soils, reduced rainfall reduces soil water below the optimum for soil biota resulting in a decrease in soil carbon loss.

Most of the earth's terrestrial carbon is stored in soil. The world's soil carbon stocks are estimated to be circa 2000 gigatonnes (1 gigatonne = 1,000,000,000,000 kilograms) of carbon. The researchers showed that drought decreases and increases soil carbon more predictably than warming.

Data was provided from CEH's climate change manipulation experiment, which has been running for 18 years in Cloceanog forest, a wet Welsh upland site with a peat layer resulting from seasonal waterlogging. At the field site, increasing temperature and drought were imposed on the vegetation to study the effects of climate change on various ecosystem processes.

Dr Sabine Reinsch, the lead author on the paper and a Soil Ecologist at the Centre for Ecology & Hydrology, said, "This cross-European study enabled us, for the first, time to investigate plant and soil responses to climate change beyond single sites."

"Putting ecosystem responses to climate change into the wider context of natural climate gradients helps us to understand the observed responses of plants and soils better."

Professor Claus Beier, the Head of Department of Geosciences and Natural Resource Management in Denmark and co-author on the paper, said, "The study highlights and illustrates new and fundamental understanding related to the response of ecosystems to climate change.

"By conducting the same experiment at different moisture and temperature conditions across the European continent, it has become clear and visible how the pressure from climate change factors may act differently, and sometimes even opposite, across these conditions.

"These differences are important for our overall assessment of future ecosystem responses to climate change, but the study also shows that they can be understood and to some extent predicted."

Dr Marc Estiarte, a researcher at Spanish research centre CREAF-CSIC and co-author on the paper, said, "In contrast to the soils, reducing precipitation was not a threat to plant productivity in wetter sites, and in the drier sites plants resisted proportionally more than in intermediate sites, whose aboveground productivity was shown more sensitive. This illustrates the clear difference in sensitivity of the soils compared to the plants across the climate gradient."

Professor Bridget Emmett, Soil Science Area lead and head of site at the Centre for Ecology & Hydrology, Bangor, said, "These results emphasise how sensitive soil processes such as soil respiration are to environmental change.

"This sensitivity in wetter systems, combined with a decoupling from plant productivity, represents an important potential positive feedback to the atmosphere which could lead to an increase of atmospheric CO2 levels."

The new paper in Scientific Reports considers plant and soil responses to drought and warming only across European shrublands. There are several other biomes in the world where plant and soil responses to climate change could be different.

Understanding the responses of plants and soils in other biomes will provide a better understanding of climate change and the effects on global plant and soil interactions and the feedbacks to climate.

Details at: https://www.sciencedaily.com/releases/2017/03/170307100311.htm

WASWAC MEMBERSHIP APPLICATION/RENEWAL FORM (Issued 120501)

(For applicants from all countries)

Name: (Ms./Mrs./Mr./Prof./Dr.)..... Gender: □F □M

Institution:.....

Postal address:.....

State/Province:..... Zip/Postal code:..... Country:.....

Phone:..... Fax:.....

Emails (Please give at least 2 addresses to ensure uninterrupted contact): (1).....

(2)..... (3).....

My specialized field(s):.....

Please sign me up for the WASWAC membership in category*: □1(IM)□2(LM)□3(OM)□4(SM&GM)

Membership for the year(s)..... @US$..... = US$ .....

Donation for developing country membership, etc. US$ .....

Donation to the Moldenhauer Fund US$ .....

Total US$ .....

*__Membership categories & rates__ from July 18, 2005, amended March 3, 2007 and March 4, 2010.

1. IM (Individual membership): US$20 for 5 years for developing countries (In China, members pay 130 yuan RMB); US$40 for 5 years for developed countries and persons working in international organizations worldwide.

2. LM (Life membership): US$80 for developing countries (In China, members pay 520 yuan RMB); US$160 for developed countries and persons working in international organizations worldwide. Persons who have passed their 60th birthday pay only half of these LM rates.

3. OM (Organization membership): For universities, research and implemental institutions, government agencies, NGOs, societies, associations and international organizations, etc. Persons belonging to an Organization member will receive the same online products and services as the other two above categories: $100/year for an organization with up to 150 persons; $150/year for an organization with up to 300 persons: $200/year for an organization with up to 500 persons; and $10/year for an additional 100 persons or part thereof.

4. SM&GM (Student membership & Gift membership): US$5/year worldwide, to be purchased to give to colleagues, friends, students, etc.

For sending money by foreign wires through a bank, please give the following information to your bank:

Name of Receiver (A/C Holder's Name): World Association of Soil and Water Conservation

Bank Name and Address: China Construction Bank, Shoutinanlu Branch, Beijing, China, No. 9 Shoutinanlu Street, Haidian District, Beijing, P R China

A/C NO.: 1100 1042 7000 5301 6996

Message to write on the Bank Sheet: WASWAC Membership due for Ms./Mrs./Mr./Prof./Dr. ....., Country .....

NOTE: 1. Do not deduct the bank fee from the amount of money to send. **2.** For sending money by wire/bank transfer or check please add US$7 per transaction to compensate for the charge at the receiving bank in Beijing. This additional charge does not apply for **WESTERN UNION** or any payment of US$50 or more.