添付 8：セミナー資料

POLY-GLU
SOCIAL BUSINESS Co.,Ltd.

O.P.C.CORPORATION

TOYOTA TSUSHO CORPORATION

Embassy of Japan
P. O.Box 2577
Dar es Salaam, Tanzania

7th February 2013

Ref. No 130207

（宛名）

RE: INVITATION TO A PUBLIC BRIEFING:
Introduction to "Simple Type Water Treatment System"
by Poly-Glu Social Business Co., Ltd. to be rolled-out in Tanzania

Dear Sir/Madam,

It is our pleasure to invite you to a public briefing on the "Simple Type Water Treatment System", an innovative, cost-effective and environmentally-friendly water treatment facility using Japanese technology. This event will be held on **Thursday February 14, 2013 at 11:00**, at the Residence of the Ambassador of Japan (Plot no. 9, Kenyatta Drive).

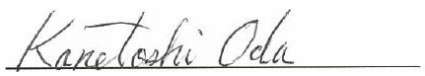
"Simple Type Water Treatment System", which enables you to transform muddy and unsafe into clean and potable water by using a type of powder containing flocculant PGα21Ca® (commonly known as Poly Glu), was invented by POLY-GLU SOCIAL BUSINESS CO., LTD., a Japanese SME based in Osaka. The company has already launched and successfully rolled out joint water treatment projects with rural and urban communities in developing countries like Bangladesh and Somalia, as you see in the attached documents.

In order to bring success stories to Tanzania, POLY-GLU SOCIAL BUSINESS CO., LTD., together with TOYOTA TSUSHO CORPORATION and OPC COOPERATION, formed the Joint Venture Survey Team (JVST), and in December 2012 commenced a pilot project in Bukoba District, Kagera Region with support from the Government of Japan.

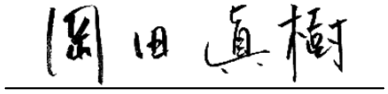
JVST and the Embassy of Japan are co-hosting this event in order to introduce the "Simple Type Water Treatment System" to the Tanzanian public and report back on the results of the pilot project in Bukoba, as well as to seek some views on the possibility of rolling out projects in other areas of Tanzania. It will be attended by important potential stakeholders of this initiative from the Government of Tanzania, as well as representatives of civil society and the media community.

We thank you in advance and look forward to seeing you at this important event that is expected to greatly contribute to the solving of problems relating to safe drinking water in Tanzania.

Yours sincerely,



Kanetoshi ODA
Chairman and Chief Executive Officer (CEO)
Poly-Glu Social Business Co., Ltd.
Team leader for Pilot Project on diffusion of simple type water treatment system for Rural Area



Masaki OKADA
Ambassador of Japan to Tanzania
Embassy of Japan in Tanzania

Simple water treatment system

Demonstration to local people

Water Supply to local people

February 14th, 2013

Poly Glu Social Business Co. Ltd

Press Release

INNOVATIVE TECHNOLOGY TO PROVIDE CLEAN & SAFE WATER TO MILLIONS.

An innovative technology from Japan aimed at providing clean & safe water has been put into test in Tanzania, Kagera region on trial basis. The pilot project has completed two installations withinBukoba and Misenyi districts. The project is supported bythe Government of Japan, and has largely been successful .

In year 2002, Poly Glu Social Business Co. Ltd of Japan, introduced easy-to use water treatment technology that has so far enabled milions of people from developing countries to access clean and safe water affordably. The invention was a dream come true for Dr. Katetoshi Oda who had researched on the product for over a decade. He is the current Chairman and CEO of the company.

With the support of the Government of Japan, the technology has successfully been introduced in other countries like Bangladesh, India and Somalia with evident social benefits that include job opportunities, reduced incidences of water borne diseases hence improved livelihood in general.

Poly Glu Social Business Co. Ltd entered Tanzania towards end of last year and has already installed two facilities within Kagera region. This has been materialised during a two-months Survey Project that commenced in December 2012. The objective of the project was to identify existing barriers that deny sufficient access to clean water by the target communities. The two facilities have been handed over to the local communities, giving them an opportunity to own, administrator and operate. The success of this pilot survey project will lead to expansion of the Poly Glu water treatment system to larger areas and hence benefiting more people in Tanzania.

The climax of the survey project was a Public briefing at the Residence of the Ambassador of Japan in Dar es Salaam on the 14th February 2013. Invited guests include the Kagera Regional Commissioner as well as the Ministry of Water officials. The expected outcome of this event is to demonstrate that the project can improve people's health, create jobs, and provide ownership through profitable self-management. Our goal is to make local people realise that they can roll out the installations by themselves using profits generated since the technology models are very simple and easy to use.

Poly Glu Social Business Co. Ltd will strengthen the efforts to contribute to wards achieving sustainable development as well as accomplish our goals both in terms of business and corporate citizenship. We hope that our innovative technology will contribute to a sustainable society through the future.

Media Contact: Jumpei Taniguchi,

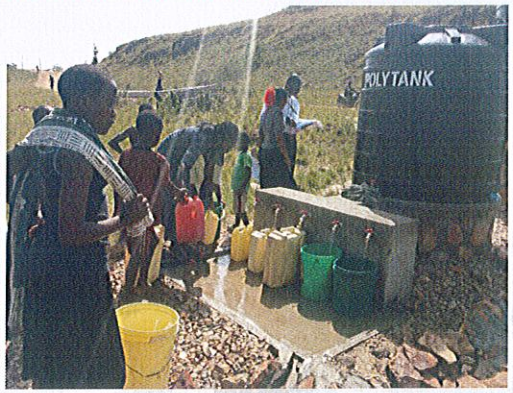
in charge of BOP Business & Public Utilities Division, Poly Glu Social Business Co. Ltd

E-mail : jumpei@poly-glu.com

"To make everyone in the world can drink raw water without fear"

Poly-Glu' s goal is to supply 10 liter of water per family every day during a month for less than 1 USD, and to
supply 20 liter every day during a month for less than 2 USD.

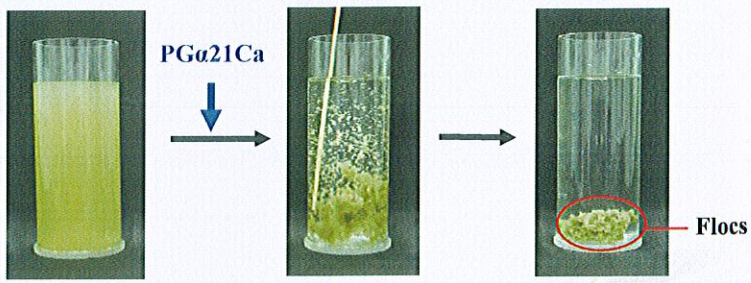
We decided to advance into Africa from Tanzania.
In Tanzania, most of our water treatment plants or equipment are made by Tanzanian people.
Also, we basically assign local residents, Tanzanian people, to manager and workers there.
They made 2 plants last 2 months that were beautiful.



Start to supply water,
2nd Feb. 2013→

POLA-GLU SOCIAL BUSINESS CO.,LTD
代表取締役会長 小田 兼利

Demonstration for PGα21Ca



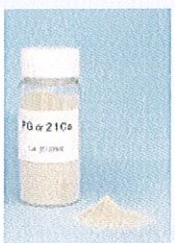
Ingredients of PGα21Ca

Realized to make safe product by using natural ingredients

Main Component

- **Cross-linked Polyglutamic Acid**

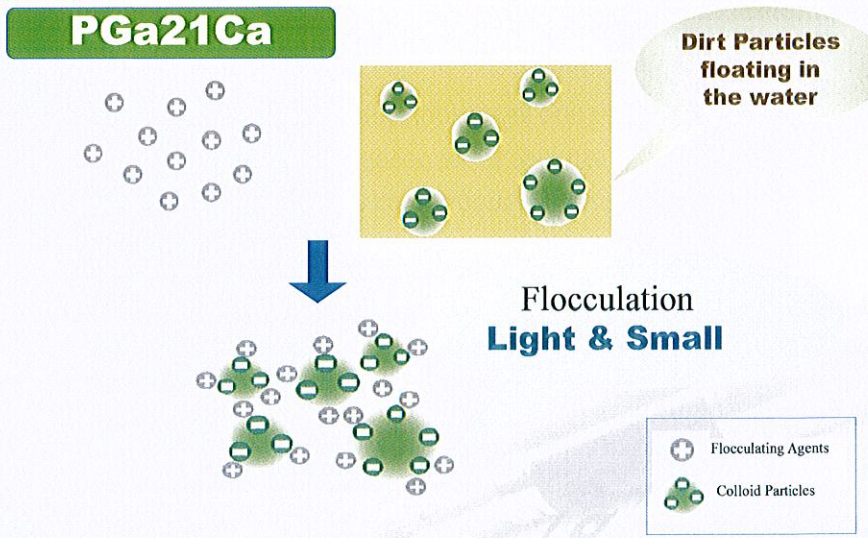
  A kind of amino acid. Widely used as a food additive.



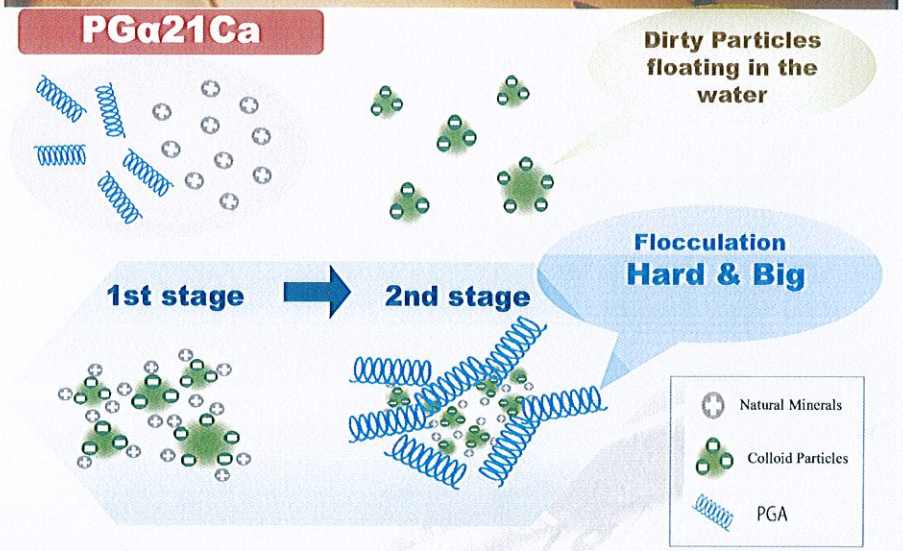
- **Natural Calcium**

  Using a natural ingredient proved to be safe to consume.

Flocculation Method①



Flocculation Method②



Feature of PGα21Ca

- Can be used in powder form.
- No need to give liquid form.
- Fast formation of flocs and their fast precipitation.
- Small changes in pH compared to other flocculants.
- Adjustment of pH is not necessary.
- Highly safe as its main component is natural calcium.
- High effect can be achieved by its sole use.
- Can remove Arsenic and Fluoride as one of the crucial problem in the world.

Very easy handling even for general users.

Concept of BOP business

A first step to eradicate world poverty

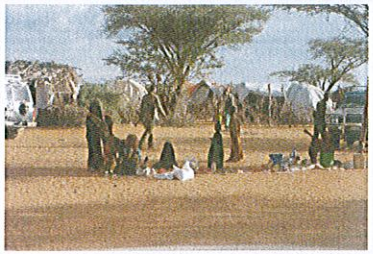
Business model in Bangladesh

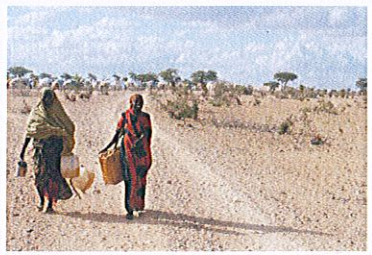
Model①Poly-Glu Ladies
→Sell flocculant
→Sell treated water and collect a bill
→Awareness campaign

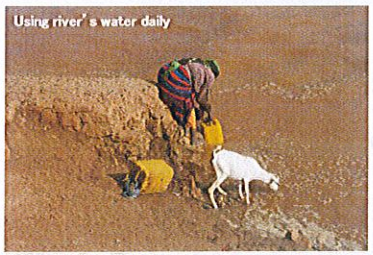
Model② Poly-Glu boys
→Manage water treatment equipment
→Sell treated water

Solve the water problems and create employment

Water supply project in Somalia (displaced persons' camp)



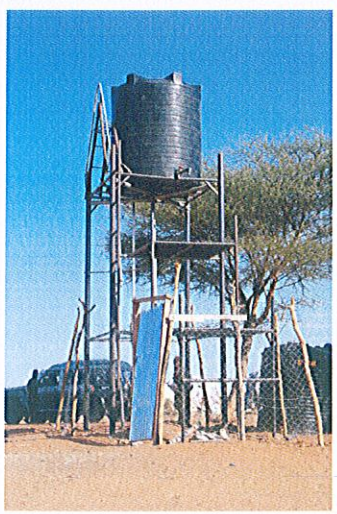


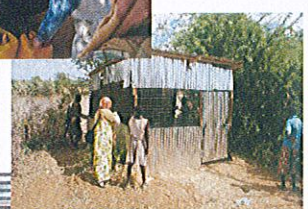


Demonstration Seminar at displaced persons' camp in Somalia

Demonstration at school

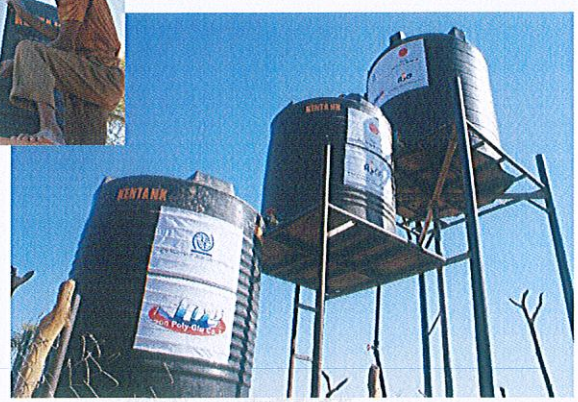
Setting up a water treatment plan in Somalia



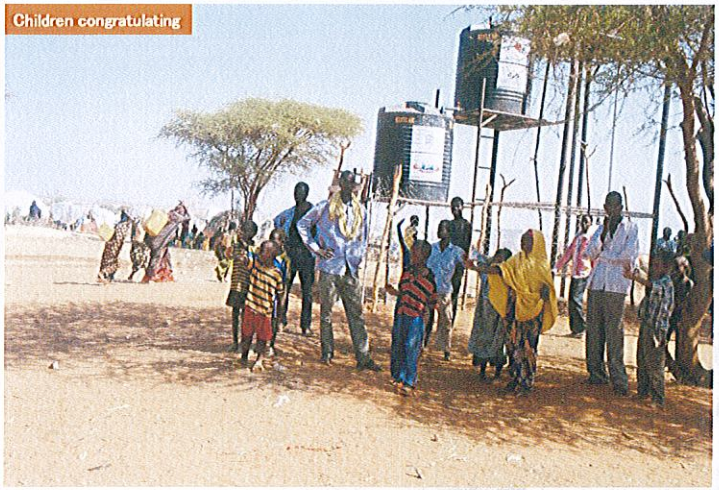


Use a big pump because it is far from water source to the plant.
Made a guardian's lodge and set plant's keeper and a key as a protection against theft.

Complete the water treatment plant in Somalia



Complete the water treatment plant in Somalia


Children congratulating

Start to supply water in Somalia

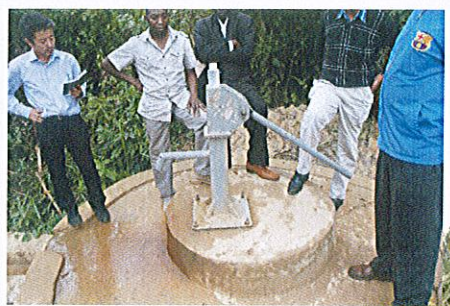
POLY-GLU SOCIAL BUSINESS CO.,LTD

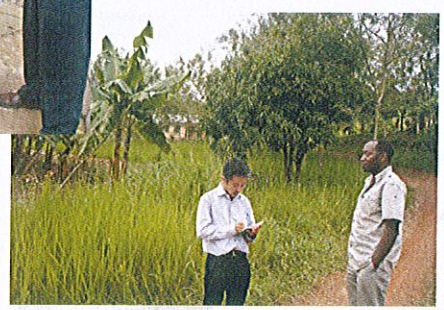
Water supply program in rural area of Tanzania

Report of dissemination project supported by official development assistance (ODA)
The First Stage: (5th, Dec. 2012~25th, Dec. 2012)

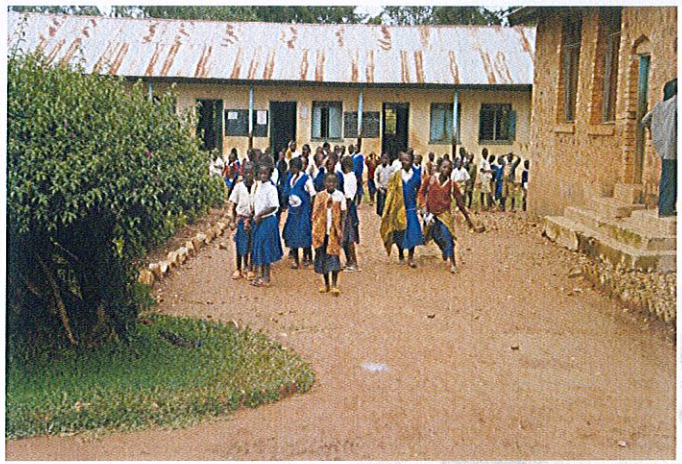
Our water treatment business is helpful to achieve all goals in MDGs. But we' d like to prove that not only water treatment business but also all of technology, wisdom, and enthusiasm that Japanese SMEs have are effective to improve the quality of life, grow economic strength in developing countries, and understand each other with Japan more deeply through this project.

Site Survey in Tanzania


There are small wells but the quality of water is not good.

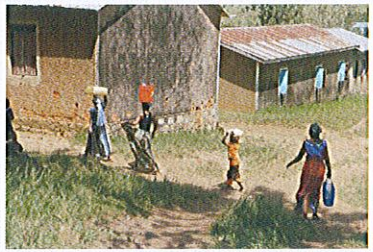

Survey of installation site

Site Survey in Tanzania



We decided to make the plant at a school.
There is a river in front of there.

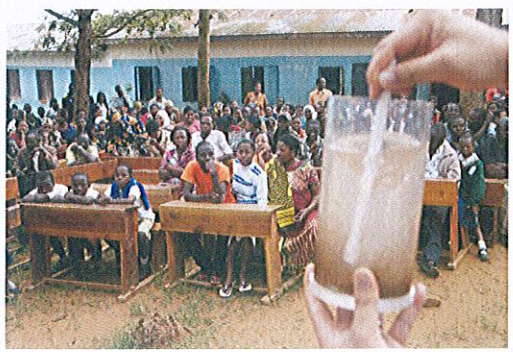
Site Survey in Tanzania



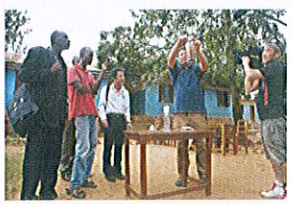
Local residents use water from river for life.

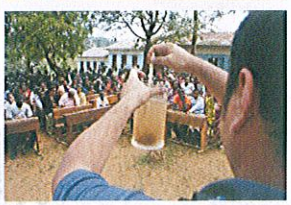
We decided to take water from this river.

Seminar to local residents in Tanzania

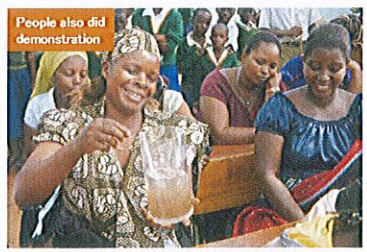


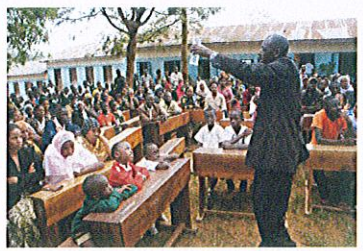
Seminar to local residents

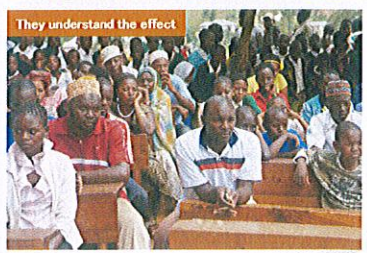


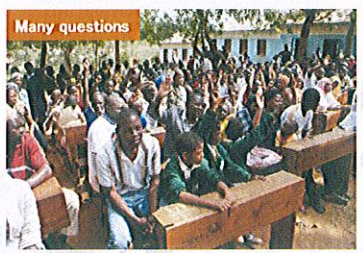


Seminar to local residents in Tanzania

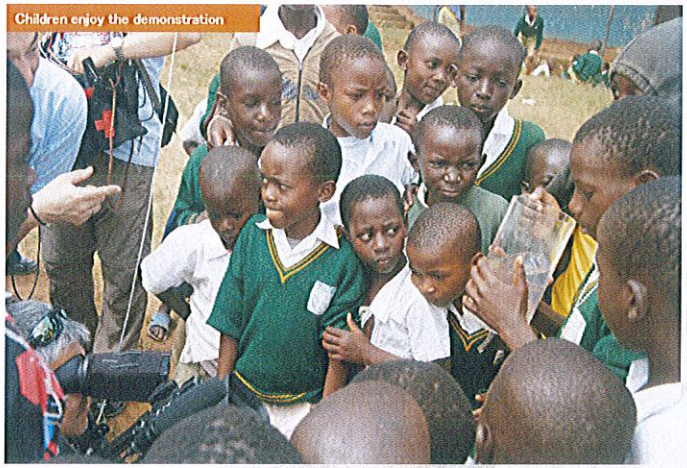








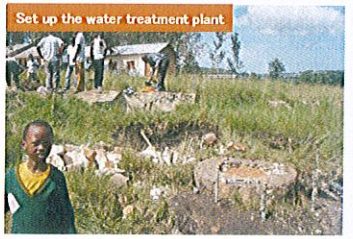
Seminar to local residents in Tanzania



Children enjoy the demonstration

Set up the water treatment plant in Tanzania

Purchase equipment locally

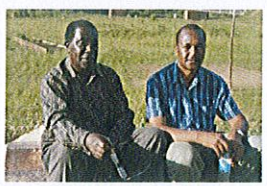


Set up the water treatment plant

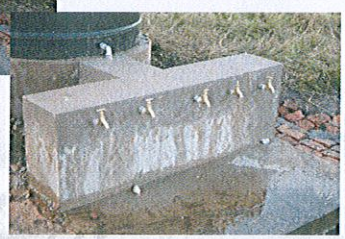
A pump made in Japan is preferd.

Set up the water treatment plant in Tanzania

Complete to set up the water treatment plant. There are also 5 taps.

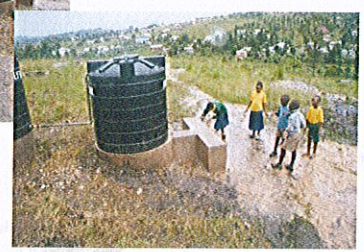


President of local construction company, he played the central role.

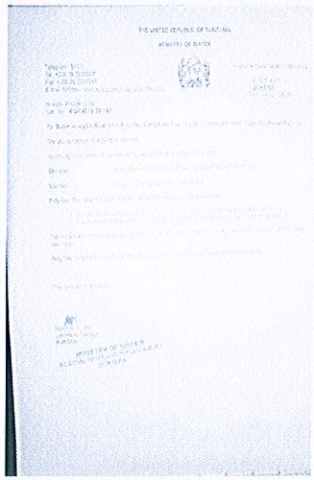


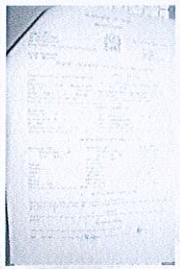
Complete to set up of water treatment plant

Complete of water treatment plant (purify 2 ton of water/hour)



Analysis Data From BUWASA Laboratory





Complete to set up of water treatment plant

Plant a memorial tree

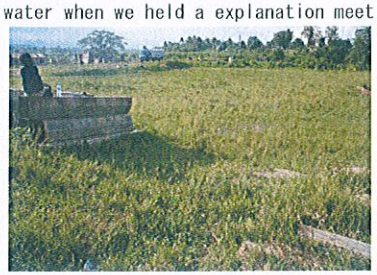
The president of construction company hopes to continue to make plants.

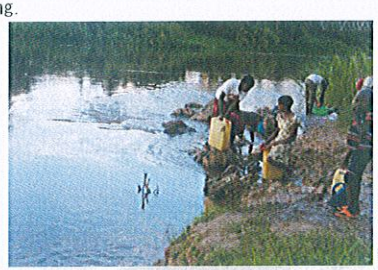
School principal is responsible for controlling and maintenance

2nd stage in Tanzania

At second stage of project in Tanzania, we will set up another big water treatment plant for only water sellers.
(Schedule: 11th , Jan. ~17th, Feb. 2013)

There are 50 persons who carry dirty water from river to earn money to live. They all told us that they prefer to carry and sell treated clean water when we held a explanation meeting.





Only 2 plants can create 100 to 150 persons' employments.
Besides, this is feasible within only 3 months from start of the plan.
Such prompt business is possible for only SMEs.

Second site was completed in Tanzania

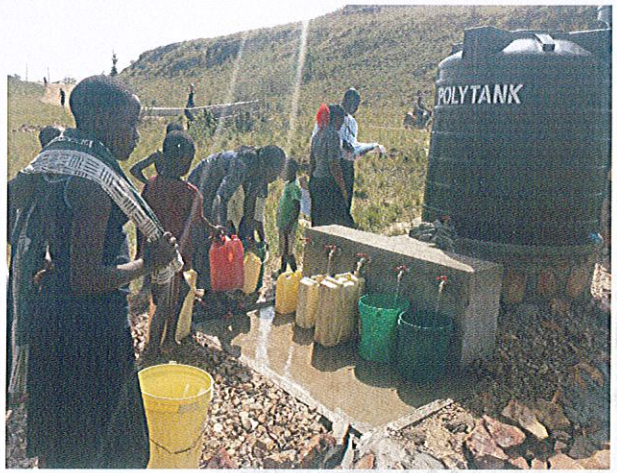
The big water treatment plant for water sellers' use only was complete. 24th , Jan, 2013

Foundation body

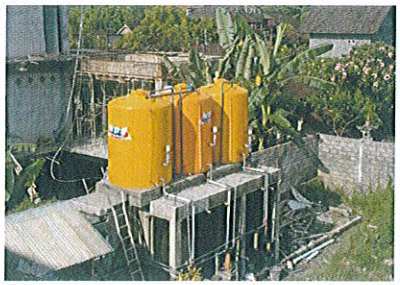
Completed water treatment plant

The Second Site was Completed in Tanzania

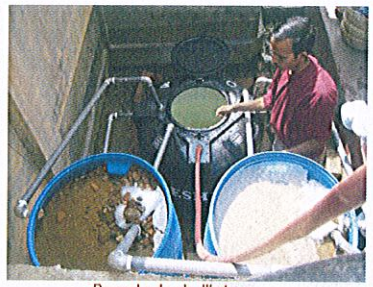
Start to supply water, 2nd Feb. 2013



Customize adjusting to Village Needs



Indonesia Water Plant



Bangladesh Water Plant

ASANTE SANA

POLY-GLU SOCIAL BUSINESS Co.,Ltd

Letter from the CEO

"The proposal to offer safe drinking water to people in Tanzania"

POLY-GLU collaborated with IOM to make 18 water supply points in Somalia, being supported by Japanese government. We are supplying safe drinking water to many displaced people there. The feature of our water treatment technology is that it is safe, easy for anyone to use, and very low-cost. Our goal is to realize "to supply 20 liter of water every day with charging only 2 USD for a month per user". We organized "Water Supply Committees" at each village in our business sites in Bangladesh and realized this price setting already. In addition to this, new jobs were created there such as a manager and operators of the water treatment plant, "Poly-Glu Lady, and "Poly-Glu Boy". Poly-Glu Ladies disseminate clean water and collect fees. Poly-Glu Boys distribute 500 liter of water in a tank to villages by a cart.

This type of social business has been launched in India too since last year.

We decided to expand our water social business into Africa, from here Tanzania. With financial support from Japanese government to build the plants and conduct the field surveys, we established 2 water treatment plants in Bukoba and saw how local residents react to this.

Most of them told "it is ideal to get 20 liter of water every day during a month with only 2 USD. But it is also affordable for us if the price is a little bit higher." The demands for 30 ton of water (30,000 liter) per day are needed to cover all expenses, such as that for fuel, flocculant and salary of operators, with this price setting of "2 USD per month". Thus, they also told us "We would make it possible to supply 30 ton of water as soon as possible. So we'd like you to help us to make a bigger water treatment plant".

＜The Goal of Poly-Glu＞

Our goal is to make local people understand that they are able to make "a new water supply point/plant by themselves through the profit from business". For this, we would like to make some "model water supply points" in the country with support from Japanese government and demonstrate people that our business can improve people's health, create new jobs, and make a profit to water management committee too.

At the same time, we believe some people will try to establish a water selling company with their own capital. Actually, there have been already some inquiries about this to our company. No wonder this happens because they can challenge to big business

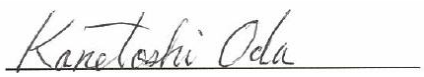
with small capital. Also, some people in remote area might hope to treat water by using flocculant by themselves.

But in any case, monitoring and guidance by Tanzanian government are necessary as water is essential for every citizen's live.

I believe our WIN-WIN-WIN social business is such a brilliant proposal to solve water related problems in Tanzania within 3 to 5 years "without any government burden". But to realize this proposal, we have to ask Japanese government to understand our vision and support "the expenses to make model water supply plants and to educate the all employees".

I certainly look forward to and appreciate all of understanding and cooperation from Japanese government, Tanzanian government, and all citizens in the country.
We hope our business to expand to all over the African continent from here Tanzania and help people. Thank you.

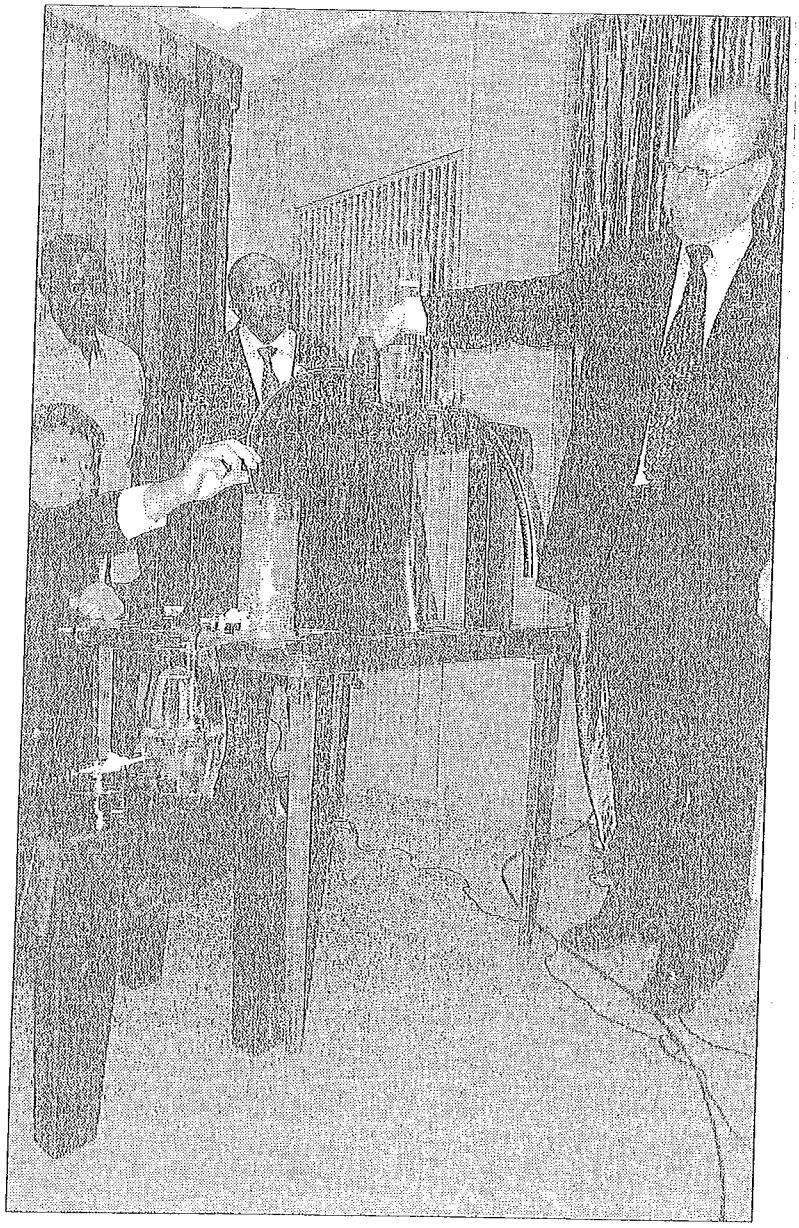
A seminar at Embassy of Japan in Tanzania, on 14th Feb, 2013



Kanetoshi ODA
CEO of Poly-Glu Group, Doctor of Engineering

MAJI NAYATIBU

Mwenyekiti wa Kampuni ya Poly-Glu Limited, Mhandisi Kanetoshi Oda akionyesha jinsi ya kuyatibu maji yasiyo safi na salama Dar es Salaam jana. Kampuni hiyo itafanya kazi katika mradi wa majaribio Bukoba, Kagera. Kushoto ni Mkuu wa Mkoa huo, Kanali Mstaafu Fabian Massawe. Picha na Mpigapicha Wetu



MWENYEKITI na Ofisa Mtendaji Mkuu wa Kampuni ya Poly-Glu Social Business Limited ya Japan, Kanetoshi Oda (kulia) na Mkuu wa Biashara na Huduma kwa Umma wa kampuni hiyo, Jumpei Taniguchi (kushoto), wakionyesha mtambo wa teknolojia ya usafishaji maji unavyofanya kazi, nyumbani kwa Balozi wa Japan, Dar es Salaam, jana. Mitambo hiyo iko katika mradi wa majaribio Bukoba, mkoani Kagera. Wa pili kushoto ni Mkurugenzi Mtendaji wa TWESA, Telesphory Lufatiye na wa tatu kushoto ni Mkuu wa Mkoa wa Kagera, Fabian Massawe. (Na Mpigapicha Wetu).

New water technology introduced

By Fariji Misonsa
The Citizen Reporter

Dar es Salaam. The embassy of Japan in Dar es Salaam yesterday introduced a simple water treatment system that enables one to purify muddy and unsafe water using a special type of powder known as "Nippon Poly-Glu."

Briefing witnesses at the residence of the Japanese Ambassador, chief executive officer of Japan's Inventive Poly-Glu Social Business Company, Mr Kanetoshi Oda, said the project, which is initially introduced in Kagera Region, was cost effective and that many people particularly those residing in rural areas would be able to purify water for drinking and other use.

Mr Oda said, so far the project had managed to install two plants in Bukoba and Misenyi districts, adding that the plants would improve access to clean and safe water.

Additionally, he said, the plants would help in addressing the problem of water borne diseases as well as creating employment opportunities for the people because they will be owned by communities.

Japanese firm for safe, potable water

By FATMA ABDU

A JAPANESE firm has introduced a water treatment system that will help in supplying safe drinking water to many people, especially in remote parts of the country.

The firm launched a pilot project in Bukoba district, Kagera region of the water treatment technology which is safe, easy to use and low-cost, according to the CEO of Poly Glu Group, Eng Kanetoshi Oda.

Addressing journalists and other stakeholders in Dar es Salaam yesterday, Eng Oda said that the simple type water treatment system is an innovative, cost-effective and environmentally-friendly facility that uses Japanese technology.

"It is a system that enables one to transform muddy and unsafe water into clean and potable water by using a special type of powder," Eng Oda said.

AS part of the pilot project in Bukoba, the company has built two water treatment plants with the aim of being able to supply 20 litres of water every day at the cost of two UD dollars per month to a household.

"Our goal is to make local people understand that they are able to make a new water supply point by themselves through the profit from people.

"We would like to make model water supply points with support from the Japanese government to demonstrate to people that our business can improve people's health, create new jobs and make profits to water management committees as well," Eng Oda said.

Eng Oda said that they believe that some people will try to establish water selling points of their own as they have already received enquiries from various quarters about the same.

He also called for proper monitoring and guidance by the government as their proposal will help to solve water problems in the country in the next three to five years.

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Japan yaja na teknolojia yakutibu maji

Na Kassim Mahege

UBALOZI wa Japan nchini umedhamiria kukabiliana na tatizo la ukosefu wa maji safi na salama kwa kutumia dawa maalum ya kuchuja uchafu unaokuwa kwenye maji.

Akizungumza katika semina iliyoandaliwa na ubalozi huo, Mhandisi, Kanetoshi Oda, alisema wamedhamiria kupambana na tatizo la maji yasio safi na salama nchini ikiwa ni miongoni mwa nchi zinazokabiliana na changamoto hiyo.

"Lengo la mradi huu ni kuhakikisha kila mtu duniani ana uhakika wa kunywa maji bila ya kuhofia kupata magonjwa, ndio maana tunatibu hata maji yenye udongo na tukiyatibu tu yanakuwa safi na salama kwa afya za binaadamu,"alisema Oda.

Alisema vifaa wanavyotumia kutibu maji ni pamoja na dawa zenye kemikali zenye uwezo wa kutoa uchafu uliokuwepo katika maji na kuua vijidudu hali inayochangia maji hayo kuwa safi na salama.

"Sisi tunaamini maji yote duniani yanafaa iwapo utayatibu kwa kutumia vifaa vyetu vya asili kutoka nchi ya Japan, tulianzia Kenya, Somalia na sasa tupo Tanzania. Teknolojia hii imethibitishwa na taasisi nyingi zinazojulikana duniani,"alisema Oda.

Alisema malighafi iliotumika kutengenezea dawa ya kutibu maji haina madhara kwa mtumiaji na hivyo kutoa wito kwa Watanzania kutumia bidhaa hiyo bila kuhofia chochote.

Kwa upande wake, Mkuu wa Mkoa wa Kagera, Fabiani Massawe, alitoa shukrani kwa Ubalozi huo kwani mkoa wake ni miongoni mwa mikoa michache inayofaidika na huduma hiyo.

"Kutumia maji yasiyokuwa safi na salama ni hatari kwa afya ya binadamu kwani yanasababisha watu kupata magonjwa; nashukuru katika mkoa wangu (Kagera) umenufaika na mradi huu naiomba Serikali ya Japan kupitia ubalozi wake kuendeleza mahusiano mazuri tuliyokuwa nayo hususan katika sekta ya biashara," alisema Massawe.

MRADI WA MAJI

Mwenyekiti wa Kampuni ya Poly-Glu Social Business, Mhandisi Kanetoshi Oda, akionesha mfumo wa kuchuja udongo katika maji kuondoa uchafu, wakati wa utambulisho wa mfumo huo, Dar es Salaam jana. Kampuni hiyo imetengeneza vyanzo vya maji kwa nchi 20 mbalimbali duniani ambapo watu zaidi ya 8000 watapata ajira kupitia miradi hiyo. Kushoto Mkuu wa Mkoa wa Kagera Bw. Fabian Massawe. Picha na Asia Mbwana

添付 9：簡易浄水装置マニュアル

POLY-GU SOCIAL BUSINESS CO., LTD

簡易浄水装置マニュアル

目次

１．簡易浄水装置とは

『簡易浄水装置』は、池や川の水、井戸水などの濁度の高い水を安全でおいしい水にすることができる水質浄化システムです。本装置では、『PGα21Ca』で凝集処理をした後、砂ろ過処理、塩素殺菌を行います。

２．システム概要

（１）全体概要

『簡易浄水装置』は、池や川の水、井戸水などの濁度の高い水を安全でおいしい水にすることができる水質浄化システムです。本システムは、当社の水質浄化剤『PGα21Ca』で凝集処理をした後、砂ろ過処理、塩素殺菌を行います。

（装置：サイト１）

（装置：サイト２）

（２）処理スペック

処理量：　　１８００リットル／２ｈ

処理フロー：　取水→凝集沈殿→砂ろ過→塩素殺菌→給水

タンク：　　凝集沈殿槽（1 トン槽）×２

　　砂ろ過槽（2 トン槽）×１

　　塩素添加・貯水槽（2 トン槽）×１

電源：　　不要

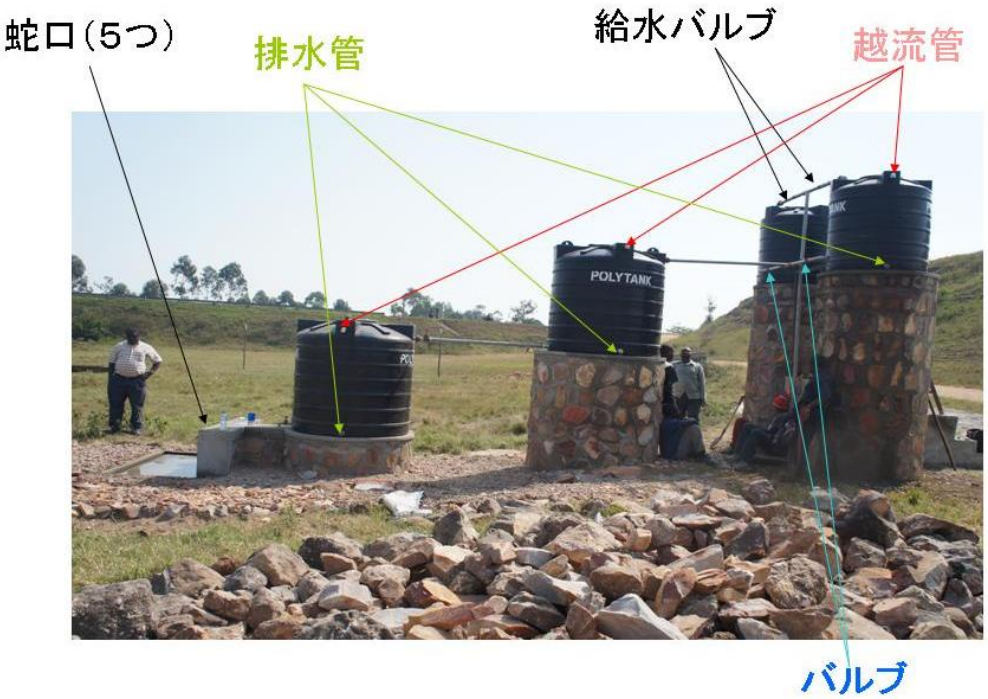
ポンプ：　　エンジンポンプ１台使用

目標水質：　タンザニア飲料水基準（ＢＵＷＡＳＡ推奨項目）をクリアする水質

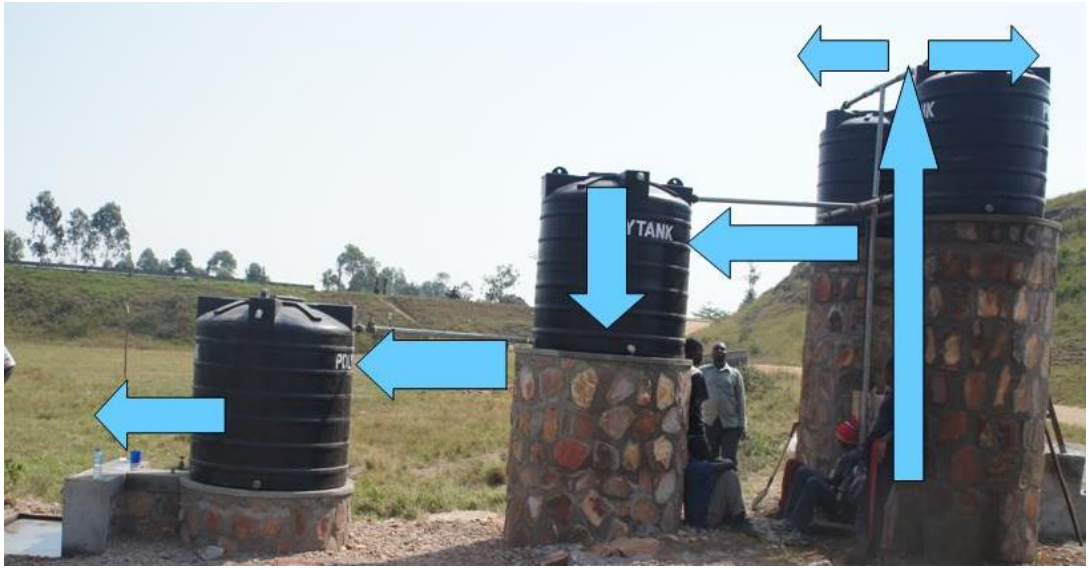
水１ｔあたりの薬品注入量：　ＰＧα２１Ｃａ　１００ｇ

　　塩素　　１.２ｇ

（３）各部のパーツ解説



（４）水の流れ



（５）各処理過程の解説

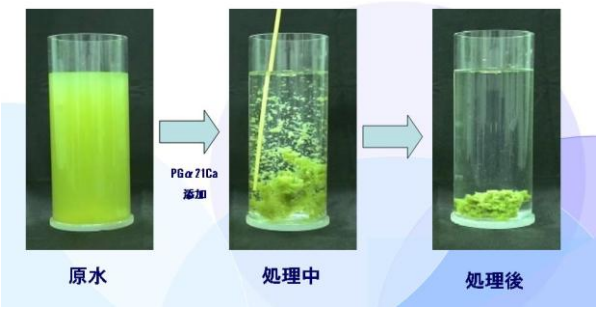
①凝集沈殿処理　水質浄化剤ＰＧα２１Ｃａ

PGα21Ca は生分解性を持つアミノ酸の高分子「ポリグルタミン酸架橋物」とカルシウム化合物を初めとする無機成分を原料とした安全性の極めて高い水質浄化剤です。有機系成分と無機系成分の両方の特性を兼ね備えているため、多様な排水、汚水に対応することができます。

《性状：粉》

《使用方法》

対象となる水に直接添加し、攪拌後、静置させることにより、濁度・色度を改善させ、固液分離が容易に出来ます



《特徴》

・天然成分由来で安全性が高く、作業従事者・処理水を飲料する人々の安全性を確保することができます。
・凝集速度が速く、沈降に要する時間が短いです。
・凝集力が強く、本剤のみの添加で汚濁水を清水にすることが可能です。
・処理対象水の pH の適用範囲が 4 から 12 までと広範囲です。
・浄化剤の添加による pH の変動が他の浄化剤と比較して小さいです。
・原料は天然成分由来で安全性が高いため、子どもでも使用できます。
・発生する汚泥の体積が小さいため、上澄みの量が多く、費用対効果が高いです。
・粉体での使用が可能なため、溶解作業などの複雑な作業が必要ありません。

《安全性試験》

安全性試験結果	
水道用薬品類の評価試験	毒性試験等
厚生労働省の定めた「水道用薬品類の評価のための試験方法ガイドライン」に従って試験を行った結果、カドミウム化合物を初めとする全項目において基準を満している。	PGα21Caの毒性試験等の結果 急性経口毒性　LD50（雌雄マウス）2,000 mg/kg以上 魚類急性毒性　LC50（ヒメダカ，96時間）10,000 mg/l以上 微生物を用いた変異原性試験（Ames試験）　陰性

②砂ろ過

硬質炭材、小石、砂利、砂の順に堆積させたろ過槽に水を通すことで不純物を取り除きます。本装置では、沈殿しない微細なフロックの除去を目的としています。

《ろ材の粒径》

・砂　　粒径　0.3～0.45mm
・砂利　粒径　3～4mm
・小石　粒径　20～30mm

硬質炭材 	小石 
砂利 	砂 

《ろ過層の堆積量》

砂６０ｃｍ
砂利１０ｃｍ
小石１０ｃｍ
硬質炭材 ４０ｃｍ

③殺菌処理　次亜塩素酸カルシウム

性状：粉体

有効塩素濃度：60%

殺菌可能な細菌：大腸菌、チフス菌、コレラ菌、赤痢菌等

添加量：1000ℓの水に対して 1.23ｇを添加

使用方法：添加後、5 分攪拌し、30 分静置する

残留塩素濃度：0.2mg/l を目標として処理を行ってください

（６）付属アクセサリー

<table>
<tr>
<td>ポンプ
  </td>
<td>取水用ポンプスタンド
  </td>
</tr>
<tr>
<td>ＰＧα２１Ｃａ
  </td>
<td>塩素
  </td>
</tr>
<tr>
<td>攪拌用のオール
  </td>
<td>浄化剤保存バケツ・スプーン
   </td>
</tr>
</table>

盗難用鍵攪拌用鍵 	はしご 

３．処理手順

（１）処理フロー

１．予備試験

ＰＧα２１Ｃａの添加濃度を決定します

①10ℓのバケツを３つ準備します

②１０ℓに対してＰＧα２１Ｃａを１ｇ、２ｇ、３ｇずつ加えます

１分間攪拌してください

５分静置します

③一番きれいになった濃度を処理の基本添加量としてください

《評価方法》

・３つの添加量で同等の水質が得られた場合は、少ない添加量を選択してください

・添加量が十分でない場合、原水の色が残ります

・添加量が十分過ぎる場合、白く濁ります

《注意事項》

・添加量には、自然界（池、川等）の水には必ず最適な量があり、１００ｐｐｍ～３００ｐｐｍ程度の添加量が最適濃度です

・１０ℓに１ｇが基準となりますが、汚れが多い場合は、添加量が増えます

・少ない添加量を選択した場合は、長めに攪拌を行なってください

・反応が無い場合は、ポリグルでの改善は困難と判断し、別の処理を考える必要があります

《浄化剤添加量計算方法》

・基準濃度は 100ℓに対して 10g の濃度（100ppm）となりますが、汚れの状態によって添加する濃度を検討してください。50ppm～300ppm の濃度が基本となります。
・ppm とは、濃度を表す単位で Part Per Million の略、100 万分の 1 の濃度です。
・下記の表を参考にして比で添加量を計算してください
・100ppm で反応しない場合は、200ppm でお試しください
・100ppm で白く濁る場合は、50ppm でお試しください
・100ppm でフロックの形成速度が遅い場合は、150ppm の濃度で添加してください
・300ppm 入れて反応しない場合は、凝集は困難な可能性があります

	10ℓ	100ℓ	1000ℓ
50ppm	0.5g	5g	50g
100ppm	1g	10g	100g
150ppm	1.5g	15g	150g
200ppm	2g	20g	200g
300ppm	3g	30g	300g

２．取水

ポンプを稼働させ、水を取り込みます

《ポンプの稼動方法》

①ガソリン、エンジンオイルを確認します
②ポンプスタンドに配管を接続します
③ポンプの電源をＯＮ
④チョークを引いてください
⑤スタートノブを引きエンジンを始動させます
⑥呼び水を入れます
⑦スピードコントロールレバーで徐々に高速にしてください
⑧揚水が終了したら、電源をＯＦＦにしてください

《注意点》

ポンプ稼動の際は、二人一組で行ってください

・ポンプ稼動役　凝集沈殿槽の確認役で分担します
・双方で合図又は携帯電話でポンプ給水状況を確認してください
・1 トン槽は、約 10 分で満水になります

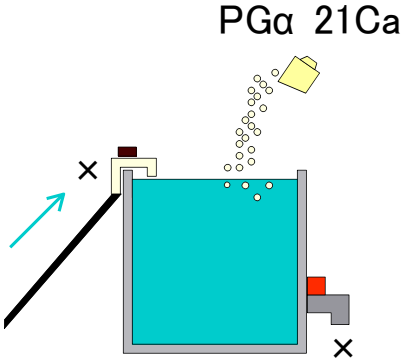
３．凝集沈殿

凝集処理槽で凝集処理を行ない、上澄みを砂ろ過槽に供給します

《凝集処理手順》

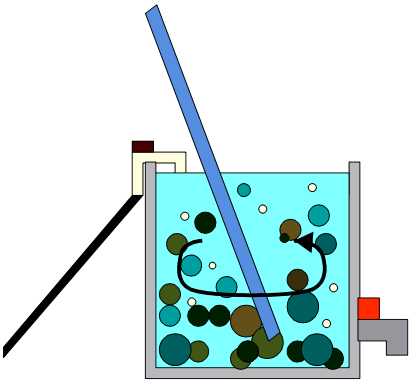
①PGα 21Ca を投入

投入は撹拌させながら少量ずつ行ってください。撹拌で濁りが分離して水が透明になっていれば投入量は適正です。濁りが残っている場合は更に足して下さい。



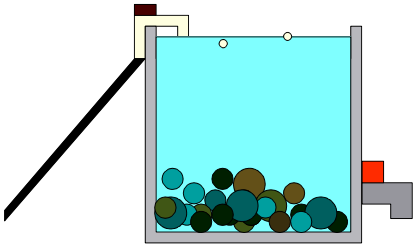
②撹拌

棒で渦を巻くように混ぜてください。水とＰＧα２１Ｃａが均等に混ざるように５分程速くかき混ぜた後、次はゆっくりと１０分間攪拌し、フロックを大きくさせます。

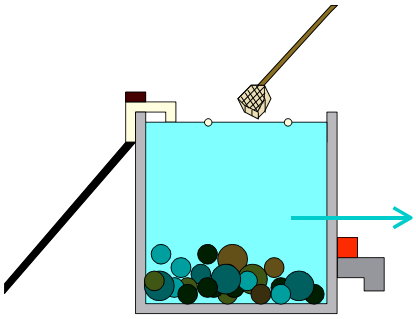


③.静置

フロックが沈むもしくは浮いて分離するまで静かに置きます。置いておく時間はフロックの出来により異なりますが１５分間程が目安です。



④上澄みを砂ろ過槽へ



上澄み水を砂ろ過槽へ移します。その際、浮いているフロックは網などですくい取り、バルブを開いて上澄みのみを砂ろ過槽へ送水してください。

４．砂ろ過

①ろ過する前に、処理水を貯水するタンクをよく洗いましょう
②砂ろ過槽に通水した際に、砂の汚れが出ないかを確認してください
③砂の表面を汚さないようにゆっくりと水を砂ろ過槽へ流します
④処理水がきれいな水になっているかを確認してください

《注意事項》
・ろ過槽は常に水を満水の状態にして下さい。
・オーバーフロー管を設置していますが、凝集槽から流れる水量の方が多いため、水面を制御しながら通水してください。

５．塩素消毒

塩素を添加し、殺菌消毒します

《塩素添加量》
目標残留塩素濃度:０．２ｍｇ／ℓ
添加量:２０００リットルに対して、２．４６ｇ

《添加方法》
①付属のスプーンで計量後、貯水槽へ直接添加してください
②５分間の急速攪拌を行います

③３０分間の静置を行うと殺菌処理が完了します

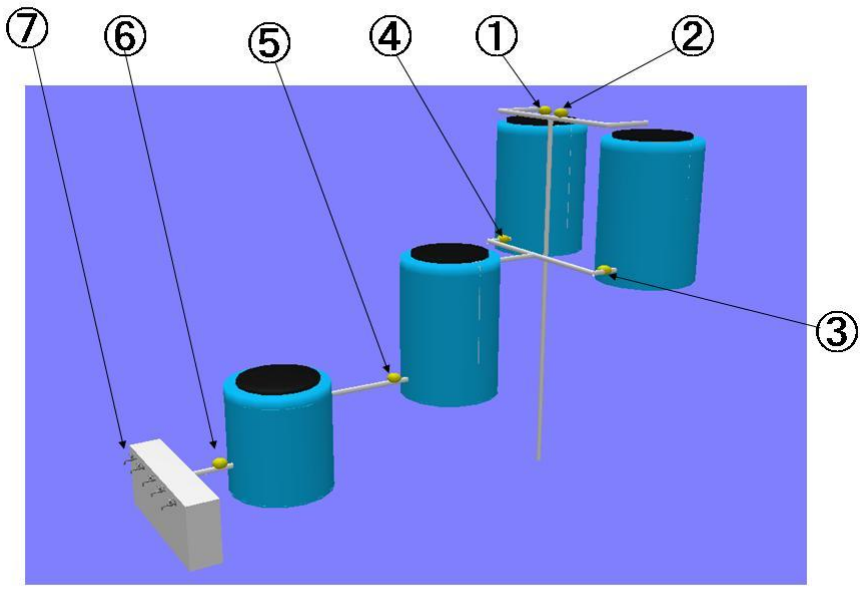
６．配水

処理の終了した水を配布します

《処理水や配布の注意点》

・配布の際は、きれいな容器に水を入れて配布してください
・容器は事前によく洗いましょう
・なるべく早く飲用するようにしてください
・水の保管は、日陰で風通しのよい場所を選んでください

（２）処理時間とバルブの開放



	タンク1	タンク2	①	②	③	④	⑤	⑥	⑦
0	取水		◎	×	×	×	×	×	×
5			○	×	×	×	×	×	×
10	ポリグル添加 急速攪拌	取水	×	◎	×	×	×	×	×
15	緩速攪拌		×	○	×	×	×	×	×
20		ポリグル添加 急速攪拌	×	×	×	×	×	×	×
25	静置	緩速攪拌	×	×	×	×	×	×	×
30			×	×	×	×	×	×	×

35		静置	×	×	×	×	×	×	×
40	ろ過槽へ送水		×	×	◎	×	◎	×	×
45			×	×	○	×	○	×	×
50			×	×	○	×	○	×	×
55			×	×	○	×	○	×	×
60		ろ過槽へ送水	×	×	○	◎	○	×	×
65			×	×	×	○	○	×	×
70			×	×	×	○	○	×	×
75			×	×	×	○	○	×	×
80			×	×	×	○	○	×	×
85	塩素剤を添加して攪拌		×	×	×	×	×	×	×
90	静置		×	×	×	×	×	×	×
95			×	×	×	×	×	×	×
100			×	×	×	×	×	×	×
105			×	×	×	×	×	×	×
110			×	×	×	×	×	×	×
115			×	×	×	×	×	×	×
120	配布開始		×	×	×	×	×	◎	◎

◎･･･バルブ開放する

○･･･バルブ開放状態のまま

×･･･バルブを開放しない

４．メンテナンス

（１）注意事項

・常に安全に心がけ、過労や危険な姿勢、服装での作業は絶対に行わないで下さい。
・本装置は飲料水を取り扱うことを念頭におき、装置周辺をきれいに保ち、装置に触れる際は必ず手洗いなどを行ってください。
・本取り扱い説明書を熟読し、その注意事項を守ってください。
・未処理の水を配布するのは絶対に止めてください。
・処理水を確認し、処理が出来ていない場合は必ず放流し、再度処理を行ってください。
・ＰＧα２１Ｃａと塩素は直射日光を避け、密閉した状態を保ってください
・本装置は、関係者以外の稼動は禁止してください。
・薬剤を触る際はスプーンや計量カップ等を使い、直接手で触らないようにしてください。

（２）保守点検

・毎日の作業前に始業点検を行ってください
・浄化槽には、排水されないフロックが溜まりますので、５回に１回を目安に排水してください。フロックの排水後は天日干しして埋め戻してください。
・３日に一度、貯水槽を洗って下さい。
・ろ過槽は、月に一度、水を排水させ、天日干して下さい。
・ろ過槽に再度貯水する場合は気泡がたまりますが、砂層をかき混ぜると気泡が抜けます。この作業を行わないと処理量が低下してしまいますので、必ず行うようにしてください。

５．故障と処理不良の対策

（１）ポンプ等の不具合

・故障した機器をすぐに止めてください

・現場で修理が可能な場合は修理を行ってください。

・修理が出来ない場合は、K.Y Entrtprize と連絡を取り修理の依頼をして下さい

・配管等のつまりがないかを確認して下さい

（２）十分な水質が得られない

【原因】

・攪拌、添加量が不十分で凝集沈殿効果が十分でない

・ろ過層の砂等の汚れが流出している

・貯水槽に汚れが残っている

・塩素と鉄管が反応している

【対策】

・ビーカーによる添加量の比較試験を行い最適な添加量を見直してください

・攪拌時間を長めに取ってみてください

・ろ過層に水を通水させて砂の洗浄を行い、十分な洗浄が出来たかを確認してください

・貯水槽をきれいに洗ってください

・長時間水を滞留させておくと塩素で鉄管が反応し、茶色のさびが出る可能性があります。その場合は、通水することで対応してください